

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON

FOURTEENTH CENSUS OF THE UNITED STATES
MANUFACTURES: 1919

AUTOMOBILES
INCLUDING BODIES AND PARTS

Prepared under the supervision of EUGENE F. HARTLEY, Chief Statistician for Manufactures

CONTENTS

EXPLANATION OF TERMS.....	Page.	GENERAL STATISTICS.....	Page.
Character of ownership, by states.....	2	Character of ownership, by states.....	8
Number and horsepower of types of prime movers.....	8	Fuel consumed, by states.....	9
Principle states, ranked by value of products.....	9	SPECIAL STATISTICS.....	
Persons engaged in the industry.....	5	Detailed statistics of number and value.....	10
Wage earners, by months, by states.....	5	Automobiles made, classified according to use and type, by states.....	10
Average number of wage earners, by prevailing hours of labor per week, by states.....	6	Automobiles made, classified according to motive power and type..	11
Size of establishments, by average number of wage earners, for states.....	7	Automobiles made, classified according to horsepower rating.....	12
Size of establishments, by value of products.....	7	GENERAL TABLES.....	
		Comparative summary, by states.....	13
		Detailed statement for the automobile industry, by states.....	14
		Detailed statement for the automobile-repairing industry, by states.....	18



EXPLANATION OF TERMS.

Scope of census.—Census statistics of manufactures are compiled primarily for the purpose of showing the absolute and relative magnitude of the different branches of industry covered and their growth or decline. Incidentally, the effort is made to present data throwing light upon character of ownership, size of establishments, and similar subjects. When use is made of the statistics for these purposes it is imperative that due attention be given to their limitations, particularly in connection with any attempt to derive from them figures purporting to show average wages, cost of production, or profits.

The census did not cover establishments which were idle during the entire year or for which products were valued at less than \$500, or the manufacturing done in educational, eleemosynary, and penal institutions.

Period covered.—The returns relate to the calendar year 1919, or the business year which corresponded most nearly to that calendar year, and cover a year's operations, except for establishments which began or discontinued business during the year.

The establishment.—As a rule, the term "establishment" represents a single plant or factory, but in some cases it represents two or more plants which were operated under a common ownership or for which one set of books of account was kept. If, however, the plants constituting an establishment as thus defined were not all located within the same city, county, or state, separate reports were secured in order that the figures for each plant might be included in the statistics for the city, county, or state in which it was located. In some instances separate reports were secured for different industries carried on in the same establishment.

Classification by industries.—The establishments were assigned to the several classes of industries according to their products of chief value. The products reported for a given industry may thus, on the one hand, include minor products different from those covered by the class designation, and, on the other hand, may not represent the total product covered by this designation, because some products of this class may be made in establishments in which it is not the product of chief value.

Influence of increased prices.—In comparing figures for cost of materials, value of products, and value added by manufacture in 1919 with the corresponding figures for earlier censuses, account should be taken of the general increase in the prices of commodities during recent years. To the extent to which this factor has been influential the figures fail to afford an exact measure of the increase in the volume of business.

Persons engaged in the industry.—The following general classes of persons engaged in the manufacturing industries were distinguished: (1) Proprietors and firm members, (2) salaried officers of corporations, (3) superintendents and managers, (4) clerks (including other subordinate salaried employees), and (5) wage earners.

The number of persons engaged in each industry, segregated by sex, and, in the case of wage earners, also by age (whether under 16 or 16 and over), was reported for a single representative day. The 15th of December was selected as representing for most industries normal conditions of employment, but where this date did not portray such conditions, an earlier date was requested.

In the case of employees other than wage earners the number thus reported for the representative date has been treated as equivalent to the average for the year, since the number of employees of this class does not ordinarily vary much from month to month. In the case of wage earners the average has been obtained in the manner explained in the next paragraph.

In addition to the more detailed report by sex and age of the number of wage earners on the representative date, a report was obtained of the number employed on the 15th of each month, by sex, without distinction of age. From these figures the average number of wage earners for the year has been calculated by dividing the sum of the numbers reported for the several months by 12. The importance of the industry as an employer of labor is believed to be more accurately measured by this average than by the number employed at any one time or on a given day.

The number of wage earners reported for the representative day, though given in certain tables for each separate industry, is not totaled for all industries combined, because, in view of the variations of date, such a total is not believed to be significant. It would involve more or less duplication of persons working in different industries at different times, would not represent the total number employed in all industries at any one time, and would give an undue weight to seasonal industries as compared with industries in continual operation.

In order to determine as nearly as possible the age distribution of the average number of wage earners for an industry, the per cent distribution by age of the wage earners for December 15, or the nearest representative day, has been calculated from the actual numbers reported for that date. The percentages thus obtained have been applied to the average number of wage earners for the year to determine the average numbers 16 years and over, and under 16, employed.

Salaries and wages.—Under these heads are given the total payments during the year for salaries and wages, respectively. The Census Bureau has not undertaken to calculate the average annual earnings of other salaried employees or wage earners. Such averages would possess little real value, because they would be based on the earnings of employees of both sexes, of all ages, and of widely varying degrees of skill. Furthermore, so far as wage earners are concerned, it would be impossible to calculate

accurately even so simple an average as this, since the number of wage earners fluctuates from month to month in every industry, and in some cases to a very great extent. The Census Bureau's figures for wage earners, as already explained, are averages based on the number employed on the 15th of each month, and while representing the number according to the pay rolls to whom wages were paid on that date, no doubt represent a larger number than would be required to perform the work in any industry if all were continuously employed during the year.

Prevailing hours of labor.—No attempt was made to ascertain the number of wage earners working a given number of hours per week. The inquiry called merely for the prevailing practice followed in each establishment. Occasional variations in hours in an establishment from one part of the year to another were disregarded, and no attention was paid to the fact that a few wage earners might have hours differing from those of the majority. All the wage earners of each establishment are therefore counted in the class within which the establishment itself falls. In most establishments, however, practically all the wage earners work the same number of hours, so that the figures give a substantially correct representation of the hours of labor.

Capital (amount actually invested).—The instructions on the schedule for securing data relating to capital were as follows:

"The answer should show the total amount of capital, both owned and borrowed, on the last day of the business year reported. All the items of fixed and live capital may be taken at the amounts carried on the books. If land or buildings are rented, that fact should be stated and no value given. If a part of the land or buildings is owned, the remainder being rented, that fact should be so stated and only the value of the owned property given. Do not include securities and loans representing investments in other enterprises."

These instructions were identical with those employed at the censuses of 1914 and 1909. The data compiled in respect to capital, however, at both censuses, as well as at all preceding censuses of manufactures, have been so defective as to be of little value except as indicating general conditions. In fact, it has been repeatedly recommended by the census authorities that this inquiry be omitted from the schedule. While there are some establishments whose accounting systems are such that an accurate return for capital could be made, this is not true of the great majority, and the figures therefore do not show the actual amount of capital invested.

Materials.—The statistics as to cost of materials relate to the materials used during the year, which may be more or less than the materials purchased during the year. The term "materials" covers fuel, rent of power and heat, mill supplies, and containers, as well as materials which form a constituent part of the product.

Rent and taxes.—The taxes include certain Federal taxes and state, county, and local taxes. Under "Federal taxes" there are included the internal revenue tax on manufactures (tobacco, beverages, etc.), excise taxes when included in values reported for products, corporation capital stock tax, and corporation income tax, but not the income tax for individuals and partners.

Value of products.—The amounts given under this heading represent the selling value or price at the factory of all products manufactured during the year, which may differ from the value of the products sold.

Value added by manufacture.—The value of products is not always a satisfactory measure of either the absolute or the relative importance of a given industry, because only a part of this value is actually created by the manufacturing processes carried on in the industry itself. Another part, and often by far the larger one, represents the value of the materials used. For many purposes, therefore, the best measure of the importance of an industry, from a manufacturing standpoint, is the value created by the manufacturing operations carried on within the industry. This value is calculated by deducting the cost of the materials used from the value of the products. The figure thus obtained is termed in the census reports "value added by manufacture."

Cost of manufacture and profits.—The census data do not show the entire cost of manufacture, and consequently can not be used for the calculation of profits. No account has been taken of depreciation or interest, rent of offices and buildings other than factory or works, insurance, ordinary repairs, advertising, and other sundry expenses.

Primary horsepower.—This item represents the total primary power equipment of the manufacturing establishments plus the amount of power, principally electric, rented from other concerns. It does not cover the power of electric motors taking their current from dynamos driven by primary power machines operated by the same establishment, because the inclusion of such power would obviously result in duplication. The figures for primary horsepower represent the rated capacity of the engines, motors, etc., and not the amount of power in actual daily use.

Fuel.—Statistics of the quantity of fuel used are shown only for anthracite and bituminous coal, coke, fuel oils, gasoline and other volatile oils, and gas, and represent the quantity used during the year. As only the principal kinds of fuel are shown, comparison as to the total cost of all fuel is impracticable.

AUTOMOBILES, INCLUDING BODIES AND PARTS.

GENERAL STATISTICS.

General character of the industry.—The figures covering the operations of the automobile industry, as shown in this bulletin, are derived from a consolidation of the reports made (1) by establishments manufacturing complete automobiles as their product of chief value, and (2) those engaged chiefly in the production of automobile bodies and parts. The term "bodies and parts" as here used signifies all automobile parts other than tires, engines, lamps, springs, and electric motors and starting and lighting systems. The products of establishments of the second class largely become the material of those of the first class, while a number of establishments manufacturing chiefly complete automobiles reported considerable quantities of bodies and parts. There is thus a considerable duplication in the industry as a whole. The statistics for the factories which produce complete machines and those which manufacture bodies and parts do not, however, indicate the full extent and importance of the automobile industry, because of the large number of establishments in other industries, which manufacture engines, motors, parts of machinery, tools, rubber tires, and other parts and accessories of automobiles.

Statistics are also shown for the repairing of automobiles and vulcanizing of tires.

Comparative summary.—Table 1 summarizes the statistics for the combined industry for each census since 1899, with percentages of increase for each five-year period. The figures of each census up to and including that of 1914 are fairly comparable and indicate the remarkable growth of the industry during that period. In considering the exceedingly large increases from 1914 to 1919, in salaries and wages, cost of materials, and value of products, consideration must be given to the general rise of prices and wages, following the World War, which do not therefore fairly measure the growth of the industry for that period. A truer index of the conditions is found in the increase in the average number of wage earners and primary horsepower. Between 1914 and 1919 the manufacture of automobiles advanced in rank among the manufacturing industries of the country from eighth to third place with respect to value of products.

Summary of the industry.—Table 2 presents a summary of the combined industry and each of the branches, for the United States as a whole for 1919.

Of the 2,830 establishments in the combined industry, only 315, or 11.1 per cent, were engaged primarily in the manufacture of complete automobiles, but these

establishments employed 61.4 per cent of the total number of wage earners and reported 77.5 per cent of the total value of products.

The net value of products of the automobile industry as a whole is probably most nearly represented by the total value of the complete machines manufactured, \$1,554,881,496. This figure, however, excludes the value of bodies, parts, and accessories made for sale as such to garages and dealers.

Principal states, ranked by value of products.—Michigan, as shown by Table 3, was preeminently the leading state in the industry in 1919, as it was in 1914, 1909, and 1904. For 1919 the establishments in Michigan reported 51.3 per cent of the total average number of wage earners employed in the combined industry, 52.6 per cent of the value of products, and 58.0 per cent of the value added by manufacture. In 1919 this state employed 48,893, or 38.5 per cent, more wage earners and reported \$987,551,882, or 156.1 per cent, greater product than was reported for the entire industry in the United States in 1914. The four leading states, Michigan, Ohio, New York, and Indiana, have held the same relative rank since the census of 1909, and in 1919 these four states produced 77.6 per cent of the total value of products for the industry.

Persons engaged in the industry.—The classification by sex for 1919 was reported separately, but for 1914 and 1909 was obtained in the same manner as the distribution by age. The age classification of the average number of wage earners in Table 4 is an estimate obtained by the method described in the "Explanation of terms," page 2. Figures by states will be found in Table 17.

Wage earners, by months, by states.—As shown by Table 5, the number of wage earners employed in the industry month by month ranged from a maximum of 399,044 in December to a minimum of 283,491 in January, the minimum number being equivalent to 71 per cent of the maximum. Figures are given for all states reporting an average of over 500 wage earners that could be shown without disclosing operations of individual establishments.

Average number of wage earners, by prevailing hours of labor per week, by states.—Table 6 shows a marked shortening of the working day for the industry since 1914. In that year only 33.3 per cent were reported as employed fewer than 54 hours as compared with 80.7 per cent in 1919. This reduction is especially noticeable in the state of Michigan, where only 8.9 per cent of the total wage earners were employed 54 hours or over.

MANUFACTURES.

Size of establishments, by average number of wage earners, by states.—Analysis of Table 7 discloses the significant fact that 1,362 establishments, or 48.1 per cent of the total number for the industry, employed less than six wage earners each while only 2,644, or eight-tenths of 1 per cent of the total number of wage earners, were employed therein, evidencing the predominance of the small establishments based on the average number of wage earners. On the other hand, the group "501 to 1,000 wage earners" and "Over 1,000 wage earners" comprising 107 establishments, or 3.8 per cent of the total number in the industry, employed 257,141 wage earners, or 74.9 per cent of the total average number, illustrating the extent of manufacturing operations in a few large establishments.

Size of establishments, by value of products.—At the censuses of 1909 and 1914 establishments with products valued at "\$100,000 to \$1,000,000" constituted one group, but at the census of 1919 this group was subdivided into "\$100,000 to \$500,000," and "\$500,000 to \$1,000,000." Separate figures for the number of establishments and value of products have been compiled, however, from the returns for 1914. The table, therefore, gives combined figures for these two groups in the case of all items for 1909, and in the case of average number of wage earners and value added by manufacture for 1914. The statistics in Table 8 show the degree of concentration of production in large establishments. In 1919 the group "\$1,000,000 and over" included 270 establishments, or 9.5 per cent of the total number for the industry, employed 297,915 wage earners, or 86.8 per cent of the total average number, and reported products to the value of \$2,871,134,025, or 93.2 per cent of the total value of products.

Character of ownership, by states.—Table 9 presents statistics concerning the character of ownership, or

legal organization, of establishments engaged in the industry in 1919, 1914, and 1909.

For 1914 and 1909 considerably more than one-half of the total number of establishments were under corporate ownership, but for 1919 less than one-half, or 44.1 per cent, as reported as owned by corporations. This decline in proportion is due to the large number of small establishments under individual and firm ownership in the "automobile bodies and parts" branch of the industry. Out of the 315 establishments engaged in the manufacture of complete automobiles 292, or 92.7 per cent, were reported as owned by corporations. In the combined industry in 1919 that class of ownership employed 97.3 per cent of the wage earners and reported 98.6 per cent of the total value of products.

Number and horsepower of types of prime movers.—From 1914 to 1919, as shown by Table 10, there was an increase in the total horsepower for the industry of 370,558 horsepower, or 213.4 per cent; owned power increased 88,986 horsepower, or 125.8 per cent; and electric rented power 277,232, or 271.4 per cent, during the five-year period. Not only has the use of electric rented power increased greatly, but a large proportion of the owned power was transformed into electric power, it representing 69.6 per cent of the total owned power reported in 1919.

Fuel consumed, by states.—Table 11 shows the principal kinds of fuel used for the industry in 1919 and 1914 and also gives separately the amounts consumed in states requiring considerable quantities of fuel for manufacturing purposes. Of the total for the three chief kinds of fuel used—bituminous coal, fuel oils, and gas—Michigan reported the largest consumption of each; using 50.8 per cent, 50.1 per cent and 38 per cent, respectively.

TABLE 1.—COMPARATIVE SUMMARY: 1919, 1914, 1909, 1904, AND 1899.

	1919	1914	1909	1904	1899	PER CENT OF INCREASE. ¹			
						1914-1919	1909-1914	1904-1909	1899-1904
Number of establishments.....	2,830	1,271	743	178	57	122.7	71.1	317.4	.....
Persons engaged.....	306,104	145,051	\$5,359	13,838	(2)	171.4	71.0	540.2	.....
Proprietors and firm members.....	2,165	760	405	103	(2)	184.9	87.7	203.2	310.7
Salaried employees.....	50,824	18,099	9,233	1,181	208	180.8	96.0	081.8	528.4
Wage earners (average number).....	343,115	127,002	75,721	12,049	2,241	170.0	67.8	437.7	.....
Primary horsepower.....	544,242	173,684	75,550	10,109	3,164	213.4	129.0	647.4	219.5
Capital.....	\$1,780,048,052	\$407,729,015	\$173,837,111	\$23,083,860	\$5,708,857	330.8	134.5	653.1	300.1
Salaries and wages.....	503,305,517	139,452,553	58,173,291	8,410,217	1,615,428	325.5	130.7	501.2	421.0
Salaries.....	102,184,144	37,525,070	9,470,424	1,257,250	294,770	172.3	295.9	054.0	326.5
Wages.....	401,121,373	101,926,874	48,003,867	7,158,058	1,320,658	381.8	109.3	530.2	442.1
Paid for contract work.....	1,758,343	3,054,924	550,320	1,080,576	(2)	-55.5	618.6	-48.1	.....
Rent and taxes.....	150,185,902	5,152,314	1,483,432	1,209,056	(2)	2,815.1	247.3	.....	628.0
Cost of materials.....	1,940,678,876	356,207,030	131,645,730	13,151,365	1,804,287	444.8	170.6	901.0	532.5
Value of products.....	3,080,073,979	632,831,474	249,202,075	30,033,536	4,748,011	380.7	153.0	729.7	473.5
Value added by manufacture ²	1,139,395,103	270,623,544	117,550,330	16,882,171	2,943,724	311.0	135.3	500.3	473.5

¹ A minus sign (−) denotes decrease; percentages are omitted where base is less than 100.² Figures not available.³ Exclusive of internal revenue.⁴ Value of products less cost of materials.

AUTOMOBILES.

5

TABLE 2.—SUMMARY OF THE INDUSTRY: 1919.

	Total ¹	Automobiles.	Automobile bodies and parts.		Total ¹	Automobiles.	Automobile bodies and parts.
Number of establishments.....	2,830	315	2,515	Paid for contract work.....	\$1,758,343	\$108,142	\$1,560,201
Persons engaged.....	396,104	242,922	153,182	Rent and taxes.....	\$150,195,902	\$128,155,939	\$22,040,023
Proprietors and firm members.....	2,165	36	2,129	Cost of materials.....	\$1,940,678,576	\$1,578,051,574	\$362,027,302
Salaried employees.....	50,824	32,327	18,497	Value of products.....	\$3,080,073,979	\$2,387,903,287	\$692,170,692
Wage earners (average number).....	343,115	210,559	132,556	Value added by manufacture ²	\$1,139,395,103	\$809,251,713	\$330,143,300
Primary horsepower.....	544,242	287,323	256,919	Automobiles made:			
Capital.....	\$1,780,948,952	\$1,310,451,400	\$470,497,552	Number.....	\$1,683,916	1,675,926	\$4,900
Salaries and wages.....	\$993,305,517	\$728,381,674	\$213,923,843	Value.....	\$1,554,881,496	\$1,546,961,696	\$7,919,800
Salaries.....	\$102,184,144	\$67,215,804	\$34,968,340				
Wages.....	\$491,121,373	\$312,165,870	\$178,955,503				

¹ In addition, automobiles and bodies and parts to the value of \$25,337,008 were manufactured by establishments engaged primarily in other industries.

² Value of products less cost of materials.

³ Includes 4,600 automobiles, valued at \$7,704,495, made in establishments engaged in the manufacture of products other than automobiles or automobile bodies and parts.

TABLE 3.—PRINCIPAL STATES, RANKED BY VALUE OF PRODUCTS: 1919.

STATE.	WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.				STATE.	WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	Number of establish-ments	Average num-ber	Per cent dis-tri-bution.	Rank.	Amount (ex-pressed in thou-sands).	Per cent dis-tri-bution.	Rank.	Amount (ex-pressed in thou-sands).	Per cent dis-tri-bution.	Rank.	Number of establish-ments	Average num-ber	Per cent dis-tri-bution.	Rank.	Amount (ex-pressed in thou-sands).	Per cent dis-tri-bution.	Rank.	Number of establish-ments	Average num-ber	Per cent dis-tri-bution.	Rank.	Amount (ex-pressed in thou-sands).	Per cent dis-tri-bution.	Rank.	
United States	2,830	343,115	100.0	....	\$3,080,074	100.0	....	\$1,139,395	100.0	....	Iowa	43	564	0.2	18	\$3,297	0.1	20	\$1,328	0.1	19			
Michigan	271	175,985	51.3	1	1,620,383	52.6	1	660,610	58.0	1	Rhode Island	18	179	0.1	29	685	(1)	29	481	0.1	28				
Ohio	251	45,882	13.4	2	379,436	12.3	2	128,456	11.3	2	Alabama	9	89	(1)	31	263	(1)	33	170	(1)	30				
New York	344	30,483	8.9	3	211,137	6.9	3	75,340	6.6	3	Oregon	17	46	(1)	34	259	(1)	34	141	(1)	32				
Indiana	172	25,773	7.5	4	179,065	5.8	4	61,298	5.4	4	Florida	8	44	(1)	35	207	(1)	36	116	(1)	34				
Wisconsin	95	13,585	4.0	6	119,381	3.9	5	44,204	3.9	5	Mississippi	4	50	(1)	33	178	(1)	37	106	(1)	33				
Pennsylvania	202	14,708	4.3	5	113,820	3.7	6	37,691	3.3	6	Utah	6	56	(1)	33	166	(1)	38	110	(1)	35				
Illinois	229	8,805	2.6	7	104,883	3.4	7	30,930	2.7	7	Maine	6	40	(1)	36	87	(1)	40	63	(1)	39				
Missouri	88	3,240	0.9	10	71,940	2.3	8	16,996	1.5	9	Delaware	5	11	(1)	41	64	(1)	41	48	(1)	41				
New Jersey	116	5,519	1.6	8	51,671	1.8	9	17,585	1.5	8	North Dakota	5	12	(1)	40	63	(1)	42	35	(1)	42				
California	265	3,008	0.9	11	44,362	1.4	10	14,014	1.2	10	Montana	6	4	(1)	43	34	(1)	44	18	(1)	44				
Massachusetts	96	4,530	1.3	9	27,032	0.9	12	10,750	0.9	11	Idaho	5	7	(1)	42	22	(1)	46	14	(1)	45				
All other states	541	10,480	3.1	....	148,639	4.8	....	10,480	3.1	....	All other states	541	10,480	3.1	....	38,854	3.4	....	38,854	3.4	....			

¹ Less than one-tenth of 1 per cent.

TABLE 4.—PERSONS ENGAGED IN THE INDUSTRY: 1919, 1914, AND 1909.

INDUSTRY AND CLASS.	Cen-sus year.	Total.	Male.	Fe-male.	PER CENT OF TOTAL.		INDUSTRY AND CLASS.	Cen-sus year.	Total.	Male.	Fe-male.	PER CENT OF TOTAL.	
					Male.	Fe-male.						Male.	Fe-male.
Automobiles, including bodies and parts.	1919	396,104	366,713	29,391	92.6	7.4	Clerks and other subordinate salaried employees.	1919	25,896	16,606	9,290	64.1	35.9
	1914	145,991	139,967	5,984	95.9	0.3		1914	10,512	7,935	2,577	75.5	24.5
	1909	85,359	82,918	2,441	97.1	2.9		1909	5,498	4,275	1,223	77.8	22.2
Proprietors and officials.....	1919	14,371	14,181	190	98.7	1.3	Wage earners (average number)....	1919	210,559	202,374	8,185	96.1	3.9
	1914	4,488	4,445	38	99.2	0.8		1914	79,307	78,100	1,207	98.5	1.5
	1909	2,564	2,543	21	99.2	0.8	16 years of age and over.....	1919	51,294	50,922	372	99.3	0.7
Proprietors and firm members.....	1919	2,165	2,126	39	98.2	1.8		1919	210,308	202,126	8,182	96.1	3.9
	1914	780	749	11	98.6	1.4	Under 16 years of age.....	1914	70,218	78,012	1,204	98.5	1.5
	1909	405	397	8	98.0	2.0		1909	51,187	50,818	369	99.3	0.7
Salaried officers of corporations.....	1919	2,214	2,103	51	97.7	2.3	Automobile bodies and parts..	1919	153,182	141,341	11,841	92.3	7.7
	1914	1,150	1,128	22	98.1	1.9		1914	53,954	51,760	2,194	95.9	4.1
	1909	758	748	10	98.7	1.3		1909	27,217	26,377	840	96.9	3.1
Superintendents and managers.....	1919	9,992	9,892	100	99.0	1.0	Proprietors and officials.....	1919	7,904	7,739	115	98.5	1.5
	1914	2,573	2,568	5	99.8	0.2		1914	2,305	2,273	32	98.6	1.4
	1909	1,401	1,398	3	99.8	0.2		1909	1,214	1,199	15	98.8	1.2
Clerks and other subordinate salaried employees.....	1919	38,618	34,354	14,264	63.1	36.9	Proprietors and firm members.....	1919	2,129	2,092	37	98.3	1.7
	1914	14,376	10,679	3,897	74.3	25.7		1914	700	689	11	98.4	1.6
	1909	7,074	5,422	1,652	76.6	23.4		1909	322	316	6	98.1	1.9
Wage earners (average number)....	1919	343,115	328,178	14,037	95.6	4.4	Salaried officers of corporations.....	1919	1,666	1,620	46	97.2	2.8
	1914	127,092	124,843	2,240	98.2	1.8		1914	659	643	16	97.6	2.4
	1909	75,721	74,053	768	99.0	1.0		1909	357	379	8	97.9	2.1
16 years of age and over.....	1919	342,509	327,029	14,880	95.7	4.3	Superintendents and managers.....	1919	4,109	4,077	32	99.2	0.8
	1914	120,899	124,659	2,440	98.2	1.8		1914	940	941	5	99.5	0.5
	1909	75,559	74,794	765	99.0	1.0		1909	505	504	1	99.8	0.2
Under 16 years of age.....	1919	606	549	57	90.6	9.4	Clerks and other subordinate salaried employees.	1919	12,722	7,748	4,074	60.9	39.1
	1914	193	184	9	95.3	4.7		1914	3,864	2,744	1,120	71.0	29.0
	1909	162	159	3	98.1	1.9		1909	1,570	1,447	429	72.8	27.2
Automobiles.....	1919	242,922	225,372	17,550	92.8	7.2	Wage earners (average number)....	1919	132,550	125,804	6,752	94.9	5.1
	1914	91,997	88,207	3,790	95.9	4.1		1914	47,785	46,743	1,042	97.8	2.2
	1909	55,142	50,541	1,001	97.2	2.8		1909	24,427	24,031	396	98.4	1.6
Proprietors and officials.....	1919	6,467	6,392	75	98.8	1.2	16 years of age and over.....	1919	12,201	125,503	6,698	94.0	5.1
	1914	2,178	2,172	6	99.7	0.3		1914	47,683	46,647	1,036	97.8	2.2
	1909	1,350	1,344	6	99.6	0.4		1909	24,727	23,976	396	98.4	1.6
Proprietors and firm members.....	1919	36	34	2	94.4	5.6	Under 16 years of age.....	1919	355	301	54	94.8	15.2
	1914	60	60	0	100.0	....		1914	102	96	8	94.1	5.9
	1909	83	81	2	97.6	2.4		1909	55	55	....	100.0	....
Salaried officers of corporations.....	1919	548	543	5	99.1	0.9							
	1914	491	485	6	98.8	1.2							
	1909	371	369	9	99.5	0.5							
Superintendents and managers.....	1919	5,883	5,815	68	98.8	1.2							
	1914	1,627	1,627	0	100.0	....						
	1909	896	894	2	99.8	0.2							

MANUFACTURES.

TABLE 5.—WAGE EARNERS, BY MONTHS, BY STATES: 1919.

[The month of maximum employment for each state is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

STATE.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	Febrary.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States.....	343,115	283,491	280,172	300,583	314,775	317,409	331,707	351,746	365,274	378,284	380,274	396,441	399,044	71.0
1919:														
Males.....	328,478	<i>269,921</i>	276,086	287,359	301,001	303,159	317,763	337,084	350,205	362,113	372,043	379,755	382,627	70.5
Females.....	11,937	<i>13,570</i>	<i>13,086</i>	13,224	13,774	14,310	14,044	14,662	15,000	16,141	17,231	17,086	16,417	74.0
1914.....	127,092	<i>126,974</i>	<i>131,142</i>	135,773	137,964	132,641	122,706	119,648	125,692	127,525	128,109	117,999	119,050	85.5
1909.....	75,721	<i>66,806</i>	<i>71,142</i>	73,752	75,481	76,170	76,510	78,468	77,445	77,280	82,056	80,880	69.8	
California.....	3,008	<i>2,212</i>	2,529	2,659	2,825	3,089	3,133	3,080	3,051	3,231	3,355	3,475	3,457	63.7
Illinois.....	8,805	<i>7,315</i>	7,438	7,734	7,903	8,109	8,432	8,796	9,324	9,748	10,061	10,278	10,342	70.7
Indiana.....	25,773	<i>21,864</i>	<i>21,634</i>	23,087	24,291	25,315	26,109	26,652	26,953	27,206	27,056	26,230	26,800	72.6
Iowa.....	564	<i>499</i>	512	481	408	521	558	590	606	647	687	610	68.1	
Massachusetts.....	4,530	4,261	4,359	4,363	3,825	4,183	4,222	4,361	4,683	4,780	5,024	4,083	5,310	72.0
Michigan.....	175,085	<i>136,212</i>	141,638	148,451	157,192	161,801	173,827	183,074	191,121	190,430	204,409	206,036	205,021	65.9
Missouri.....	3,240	<i>2,802</i>	2,828	2,919	3,071	3,180	3,312	3,352	3,300	3,382	3,503	3,555	3,588	78.0
New Jersey.....	5,519	5,260	4,935	4,873	4,838	4,982	5,086	5,085	5,817	6,025	6,125	6,100	6,373	75.0
New York.....	30,482	<i>27,845</i>	28,208	28,200	29,812	29,307	29,808	31,307	31,730	32,427	33,189	31,005	31,098	83.9
Ohio.....	45,882	42,261	41,331	42,819	43,779	35,808	38,058	44,893	47,484	40,410	52,550	56,074	67,610	61.3
Pennsylvania.....	14,708	<i>12,082</i>	12,719	12,713	13,135	11,024	14,402	14,035	15,319	15,828	16,422	17,324	17,861	67.7
Wisconsin.....	13,585	12,057	11,735	12,300	13,143	13,712	13,842	13,953	13,044	14,071	14,744	14,793	14,717	70.3

TABLE 6.—AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, BY STATES: 1919 AND 1914.

STATE.	Census year.	Total.	IN ESTABLISHMENTS WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—								Over 60.
			44 and under.	Between 44 and 48.	48. ¹	Between 48 and 51.	54.	Between 51 and 60.	60.		
United States.....	1919	343,115	8,482	5,718	136,737	126,087	18,344	44,742	2,082	23	33
	1914	127,092	(2)	(3)	14,317	27,903	17,791	51,344	12,014	33	
	1909	75,721	(2)	(3)	330	2,253	22,734	26,060	22,280	1,455	
Automobiles.....	1910	210,559	3,074	2,057	91,880	82,747	9,911	15,807	58	20	
	1914	79,307	(2)	(3)	13,033	10,903	10,782	28,573	6,936		
Automobile bodies and parts.....	1910	132,556	4,808	2,701	41,857	45,340	8,433	28,925	2,399	23	13
	1914	47,785	(2)	(3)	1,281	8,030	7,000	25,771	6,078		
California.....	1910	3,008	(2)	286	50	1,000	523	158	1	1	
	1914	731	(2)	(2)	371	87	270	2	.....	
Illinois.....	1910	8,805	650	108	1,700	3,734	955	1,204	76	.....
	1914	2,515	(2)	(2)	183	630	833	897	93		
Indiana.....	1910	25,773	(2)	24	481	7,000	5,307	1,727	10,335	220
	1914	7,219	(2)	(2)	312	1,174	195	3,430	2,000	.....
Iowa ²	1910	564	61	30	208	145	30
	1914	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massachusetts.....	1910	4,530	251	416	1,415	2,316	107	3	70	20
	1914	3,439	(2)	(2)	18	363	1,981	1,001	1,001	.....
Michigan.....	1910	175,085	724	1,900	78,200	79,470	9,818	5,372	303
	1914	67,538	(2)	(2)	12,464	6,360	3,628	33,048	8,530	.....
Missouri.....	1910	3,240	971	15	873	850	358	142	31
	1914	504	(2)	(2)	14	184	208	7	31	.....
New Jersey.....	1910	5,519	745	1,021	2,451	1,049	144	108	1
	1914	2,520	(2)	(2)	18	1,037	774	677	44	.....
New York.....	1910	30,483	570	57	10,174	9,960	636	2,485	301	2
	1914	12,122	(2)	(2)	128	3,037	6,189	1,151	716	.....
Ohio.....	1910	45,882	3,077	1,101	18,258	14,011	1,472	7,277	506
	1914	18,752	(2)	(2)	476	10,138	2,674	4,003	501	.....
Pennsylvania.....	1910	14,708	51	23	2,867	2,125	367	8,567	707	1	23
	1914	3,083	(2)	(2)	15	654	205	1,901	135	.....
Wisconsin.....	1910	13,585	531	305	4,882	43	7,712	112
	1914	4,880	(2)	(2)	83	128	55	4,431	192	.....

¹ Includes 48 and under for 1914 and 1909.² Corresponding figures not available.³ Not shown separately in 1914.

AUTOMOBILES.

7

TABLE 7.—SIZE OF ESTABLISHMENTS, BY AVERAGE NUMBER OF WAGE EARNERS, BY STATES: 1919.

STATE.	TOTAL.		ESTABLISHMENTS EMPLOYING—																																			
	Establishments.	Wage earners (average number).	No wage earners.			1 to 5 wage earners, inclusive.			6 to 20 wage earners, inclusive.			21 to 50 wage earners, inclusive.			51 to 100 wage earners, inclusive.			101 to 250 wage earners, inclusive.			251 to 500 wage earners, inclusive.			501 to 1,000 wage earners, inclusive.		Over 1,000 wage earners.												
			Establishments.	Establishments.	Wage earners.	Establishments.	Establishments.	Wage earners.	Establishments.	Establishments.	Wage earners.	Establishments.	Establishments.	Wage earners.	Establishments.	Establishments.	Wage earners.	Establishments.	Establishments.	Wage earners.	Establishments.	Establishments.	Wage earners.	Establishments.	Establishments.	Wage earners.												
United States.....	1919. 2,830	343,115	219	1,143	2,644	632	7,349	333	10,918	169	12,231	142	22,895	85	29,937	53	37,064	54	220,077	1914. 1,271	127,092	51	457	1,156	3,745	161	5,369	88	16,180	40	18,377	21	15,607	20	60,575			
Automobiles.....	1919. 315	210,559	5	27	84	37	487	58	2,077	42	2,926	50	8,155	44	15,215	19	12,900	33	168,715	1914. 300	79,307	55	159	74	942	44	1,491	34	2,382	46	7,564	23	8,703	10	7,501	14	50,565
Automobile bodies and parts.....	1919. 2,515	132,556	214	1,116	2,560	595	6,862	275	8,841	127	9,305	92	14,740	41	14,722	34	24,164	21	51,362	1914. 671	47,785	51	402	997	2,803	117	3,878	54	8,701	57	8,616	11	8,106	6	10,010			
California.....	205	3,008	25	161	361	51	551	20	684	4	266	2	353	2	793	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Illinois.....	229	8,805	17	73	183	68	751	35	1,181	23	1,576	11	1,615	2	622	5	2,877	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Indiana.....	172	25,773	10	55	104	32	415	18	628	13	933	18	3,017	17	6,234	5	3,427	4	11,015	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iowa.....	43	584	4	18	39	12	153	7	216	2	156	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massachusetts.....	96	4,530	3	34	77	28	354	12	380	7	496	7	1,079	4	1,221	1	923	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Michigan.....	271	175,985	10	52	114	46	558	34	1,153	34	2,702	31	5,067	22	7,661	15	11,030	27	147,650	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Missouri.....	86	3,240	5	34	77	30	377	8	284	2	138	3	546	2	649	2	1,169	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey.....	110	5,519	7	60	128	25	254	13	450	4	354	2	342	2	819	1	858	2	2,314	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New York.....	344	30,483	25	145	360	76	950	50	1,580	20	1,363	8	1,339	7	2,628	6	4,722	6	17,541	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ohio.....	281	45,882	20	73	180	62	719	40	1,312	26	1,848	25	3,790	15	5,238	13	8,945	7	23,850	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsylvania.....	202	14,708	15	80	201	53	603	19	635	10	699	13	1,852	7	2,296	1	859	4	7,563	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin.....	85	13,585	7	31	65	20	235	14	418	9	672	6	1,025	2	627	3	2,204	3	8,339	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 8.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS: 1919, 1914, AND 1909.

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.				
	1919	1914	1909	1919	1914	1909	1919	1914	1909	1919	1914	1909		
	All classes.....	2,830	1,271	743	343,115	127,092	75,721	\$3,080,073,979	\$632,831,474	\$249,202,075	\$1,139,305,103	\$276,623,544	\$117,556,339	
Less than \$5,000.....	399	218	89	239	285	117	1,126,488	615,026	240,866	693,183	308,063	137,071		
\$5,000 to \$20,000.....	859	356	170	2,286	1,641	841	9,287,644	3,814,757	1,937,965	5,669,720	2,351,440	1,098,508		
\$20,000 to \$100,000.....	773	337	228	9,558	5,919	4,831	35,671,864	15,948,577	10,760,070	20,942,831	8,875,055	5,886,751		
\$100,000 to \$500,000.....	433	231	200	{ 21,139	{ 11,978	{ 26,735	24,340	{ 67,250,339	{ 20,984,032	{ 65,875,412	{ 28,565,800	{ 39,059,028	{ 32,057,814	
\$500,000 to \$1,000,000.....	96	30	56	{ 207,915	{ 92,512	{ 45,592	2,871,134,025	525,189,344	170,386,802	1,036,896,168	228,139,958	78,375,205		
\$1,000,000 and over.....	270	99	56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
PER CENT DISTRIBUTION.														
All classes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$5,000.....	14.1	17.2	12.0	0.1	0.2	0.2	(1)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
\$5,000 to \$20,000.....	30.4	28.0	22.9	0.7	1.3	1.1	0.3	0.6	0.8	0.5	0.9	0.9	0.9	0.9
\$20,000 to \$100,000.....	27.3	26.5	30.7	2.8	4.7	6.4	1.2	2.5	4.3	1.8	3.1	5.0	5.0	5.0
\$100,000 to \$500,000.....	15.3	18.2	26.9	{ 6.2	{ 3.5	{ 21.0	{ 3.1	{ 10.5	{ 3.3	{ 4.1	{ 14.1	{ 27.3	{ 27.3	{ 27.3
\$500,000 to \$1,000,000.....	3.4	2.4	2.4	86.8	72.8	60.2	93.2	83.0	68.4	91.0	81.8	66.7	66.7	66.7
\$1,000,000 and over.....	9.5	7.8	7.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

¹ Less than one-tenth of 1 per cent.

MANUFACTURES.

TABLE 9.—CHARACTER OF OWNERSHIP, BY STATES: 1919 AND 1914.

STATE.	Cen-	SUS-	YEAR.	NUMBER OF ESTABLISHMENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			Per cent of total.						
							In establishments owned by—			Per cent of total.			Of establishments owned by—			Per cent of total.			
				Indi-	Cor-	All	Total.	Indi-	Cor-	All	Indi-	Cor-	All	Individ-	Corpor-	All	Indi-	Cor-	All
United States.....	1919	1,115	1,248	467	333,115	6,307	333,866	2,942	1.8	97.3	0.9	\$3,080,073,079	\$28,681,406	\$3,037,127,510	\$4,261,064	0.9	98.6	0.5	
	1914	357	736	178	127,002	1,851	123,759	1,482	1.5	97.4	1.2		632,831,474	5,730,714	622,209,324	4,801,439	0.9	98.3	0.8
	1909	162	478	103	75,721	1,041	71,568	2,512	2.2	94.5	3.3		249,202,075	4,184,086	235,802,064	0,214,425	1.7	94.6	3.7
Automobile.....	1919	14	292	9	210,550	209	210,181	169	0.1	90.8	0.1		2,387,903,287	1,208,981	2,384,898,510	1,703,706	0.1	99.9	0.1
	1914	25	203	12	70,307	286	78,892	129	0.4	99.5	0.2		503,230,137	1,108,074	501,426,483	634,080	0.2	99.6	0.1
Automobile bodies and parts.....	1919	1,101	950	458	132,556	6,098	123,085	2,773	4.6	93.3	2.1		602,170,602	27,382,515	652,220,000	12,550,168	4.0	94.2	1.8
	1914	332	473	166	47,785	1,565	44,867	1,353	3.3	93.0	2.8		129,601,337	4,502,010	120,873,841	4,100,153	3.5	93.3	3.2
California.....	1919	160	40	50	3,008	796	1,851	361	26.5	61.5	12.0		44,362,046	3,814,705	38,640,285	1,007,050	8.0	87.1	4.3
	1914	61	18	10	731	215	361	152	20.4	40.8	20.8			634,683	1,457,202	300,808	25,8	50.3	14.0
Illinois.....	1919	76	124	29	8,805	584	7,953	208	6.6	90.3	3.0		104,883,442	2,918,270	99,975,550	1,080,004	2.8	95.3	1.9
	1914	18	51	10	2,515	130	2,198	217	5.1	86.4	8.5		11,018,102	441,607	9,094,802	581,753	4.0	90.7	5.3
Indiana.....	1919	43	101	28	25,773	331	25,323	119	1.3	98.3	0.5		170,064,863	1,033,368	177,520,137	502,358	0.0	99.1	0.3
	1914	13	69	4	7,219	42	7,165	12	0.6	90.3	0.2		20,380,088	92,030	20,200,550	27,502	0.3	99.6	0.1
Iowa.....	1919	18	16	0	564	71	442	51	12.6	78.4	0.0		3,297,013	312,700	2,761,710	222,468	0.5	83.8	0.7
Massachusetts.....	1919	40	43	13	4,530	259	4,071	200	5.7	89.9	4.4		27,031,604	926,740	25,416,410	688,454	3.4	94.0	2.5
	1914	19	35	12	3,430	206	3,019	214	6.0	87.8	6.2		11,198,700	657,088	9,942,047	500,655	5.9	88.8	5.4
Michigan.....	1919	46	203	23	175,985	653	175,217	115	0.4	89.6	0.1		1,020,383,356	3,802,539	1,616,065,035	515,782	0.2	99.7	(2)
	1914	32	166	7	67,638	151	67,252	135	0.2	99.6	0.2		308,280,022	520,618	3,37,394,128	374,276	0.1	99.8	0.1
Missouri.....	1919	32	40	14	3,240	161	3,000	79	5.0	92.6	2.4		71,030,403	617,125	71,066,564	255,807	0.0	98.8	0.4
	1914	5	15	5	504	22	462	20	4.4	91.7	4.0		2,182,011	50,414	2,087,088	44,800	2.3	95.6	2.1
New Jersey.....	1919	61	30	19	5,519	242	5,200	77	4.4	94.2	1.4		54,071,352	1,028,583	53,279,000	302,773	1.9	97.5	0.7
	1914	15	29	0	2,520	35	2,399	80	1.4	95.2	3.4		8,237,416	91,306	7,071,181	174,809	1.1	96.8	2.1
New York.....	1919	120	157	58	30,483	670	20,485	322	2.2	90.7	1.1		211,137,153	2,584,255	207,150,081	1,402,817	1.2	98.1	0.7
	1914	70	135	33	12,122	513	11,379	230	4.2	93.9	1.9		42,115,276	1,338,142	30,388,156	1,388,078	3.2	93.5	3.3
Ohio.....	1919	73	168	40	45,882	476	45,016	390	1.0	98.1	0.9		379,436,478	3,050,540	374,178,320	2,207,800	0.8	98.0	0.6
	1914	18	77	7	18,732	188	18,521	43	1.0	98.8	0.2		85,710,585	840,110	84,747,433	117,033	1.0	98.0	0.1
Pennsylvania.....	1919	85	82	35	14,708	502	13,021	195	4.0	94.6	1.3		113,820,134	2,196,432	110,830,508	703,134	1.9	97.4	0.7
	1914	26	87	17	3,083	125	2,804	154	4.1	91.0	5.0		10,084,083	298,423	9,352,988	432,072	3.0	92.7	4.3
Wisconsin.....	1919	23	59	13	13,585	97	13,405	23	0.7	99.1	0.2		119,380,641	400,023	118,854,293	125,735	0.3	99.0	0.1
	1914	10	31	2	4,889	39	4,850	.....	0.8	99.2	.....		18,478,190	*118,730	18,350,446	.....	0.0	99.4	.....

¹ Not shown separately in 1914.² Less than one-tenth of 1 per cent.³ Includes the group "All others."

TABLE 10.—NUMBER AND HORSEPOWER OF TYPES OF PRIME MOVERS: 1919, 1914, AND 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
	1919	1914	1909	Amount.			Per cent distribution.		
				1919	1914	1909	1919	1914	1909
Primary power, total.....	36,767	9,314	2,548	544,242	173,684	75,550	100.0	100.0	100.0
Owned.....	711	460	473	150,705	70,719	40,012	20.3	40.7	61.7
Steam.....	400	317	273	140,212	60,233	39,925	26.9	34.7	52.1
Engines.....	446	(1)	(1)	78,343	(1)	(1)	14.4	.....	.....
Turbines.....	50	(1)	(1)	67,860	(1)	(1)	12.5	.....	.....
Internal-combustion engines.....	200	146	102	12,927	10,075	7,000	2.4	5.8	9.3
Water wheels, turbines, and motors.....	15	6	8	500	411	287	0.1	0.2	0.4
Rented.....	30,050	8,845	2,075	384,537	102,905	28,938	70.7	50.3	38.3
Electric.....	36,060	8,845	2,075	370,388	102,156	27,641	69.7	58.8	36.0
Other.....	.....	.....	.....	5,149	800	1,207	0.0	0.5	1.7
Electric.....	49,122	11,218	2,032	490,500	135,818	41,820	100.0	100.0	100.0
Rented.....	36,050	8,845	2,075	370,388	102,156	27,641	77.3	75.2	66.1
Generated by establishments reporting.....	13,000	2,373	857	111,172	33,062	14,188	22.7	24.8	33.0

¹ Not shown separately.

AUTOMOBILES.

9

TABLE 11.—FUEL CONSUMED, BY STATES: 1919 AND 1914.

STATE.	Census year.	COAL.		Coke (tons, 2,000 pounds).	Fuel oils (barrels).	Gasoline and other volatile oils (barrels).	Gas (1,000 cubic feet).
		Anthracite (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).				
United States.....	1919	49,169	1,748,680	101,548	1,255,749	189,657	2,828,203
	1914	31,393	682,224	23,560	384,248	(1)	2,038,860
Automobiles.....	1919	17,133	1,120,585	81,887	853,998	161,238	2,114,482
	1914	18,697	464,584	15,850	270,115	(1)	1,650,784
Automobile bodies and parts.....	1919	82,036	628,095	19,681	401,751	26,871	713,721
	1914	17,696	197,690	7,710	114,133	(1)	388,076
California.....	1919	189	675	31	76,866	1,071	54,293
	1914	28	348	4	497	(1)	1,888
Illinois.....	1919	953	89,254	353	2,787	8,307	48,808
	1914	375	13,632	199	655	(1)	7,118
Indiana.....	1919	132	205,215	7,508	168,777	23,417	703,189
	1914	2	84,498	850	18,469	(1)	20,294
Iowa.....	1919	125	3,042	110	19	8	1,316
	1914	30	756	.....	64	(1)	13
Massachusetts.....	1919	1,894	14,578	15	510	658	1,844
	1914	1,814	7,751	1	1,339	(1)	2,895
Michigan.....	1919	1,843	887,579	.79,958	829,005	78,519	1,073,701
	1914	3,188	304,003	16,297	245,415	(1)	1,322,789
Missouri.....	1919	97	10,172	174	1,118	130	4,937
	1914	68	1,823	99	.....	(1)	1,498
New Jersey.....	1919	3,801	24,888	30	24,875	4,402	10,924
	1914	3,264	7,367	25	866	(1)	5,711
New York.....	1919	11,949	118,343	860	65,643	8,542	251,701
	1914	11,241	58,634	2,604	13,351	(1)	47,233
Ohio.....	1919	579	267,653	5,443	127,111	32,160	414,700
	1914	7,640	97,177	1,411	71,411	(1)	522,727
Pennsylvania.....	1919	19,286	41,220	827	45,827	6,405	92,839
	1914	1,133	24,568	529	12,930	(1)	14,039
Wisconsin.....	1919	506	110,608	5,880	103,374	19,849	68,590
	1914	1,561	41,790	1,462	16,875	(1)	33,527
All other states.....	1919	7,815	30,453	359	10,267	11,189	71,361
	1914	1,049	19,877	100	2,376	(1)	58,228

¹ Included in figures for fuel oils.

102783—22—2

SPECIAL STATISTICS.

Detailed statistics of number and value.—Table 12 shows, for 1919, the total number and value of all automobiles, chassis, and trailers, and the value of bodies and parts manufactured by establishments in which automobiles were the principal product and by those engaged primarily in the manufacture of other products. It also includes the value of all other

products and receipts from repairs made by establishments in the automobile industry.

Of the total number of automobiles manufactured in 1919, 99.8 per cent were gasoline vehicles, which was practically the same (99.1 per cent) as in 1914, a slight increase (95.1 per cent) over 1909, and a considerably larger proportion than in 1904 (86.2 per cent).

TABLE 12.—DETAILED STATISTICS OF NUMBER AND VALUE: 1919.

	NUMBER.			Value.	NUMBER.			Value.
	Gasoline.	Electricity.	Steam.		Gasoline.	Electricity.	Steam.	
Total value.....				\$3,105,411,047	Government, municipal, etc.....	2,778	8	\$13,019,331
Automobile industry.....				2,387,903,287	Ambulances.....	391		613,061
Automobile bodies and parts industry.....				692,170,692	Fire department apparatus.....	751	8	6,938,822
Automobiles and automobile bodies and parts made as subsidiary products by other industries.....				25,337,068	All other, mail delivery, tanks, street sweepers, oilers, etc.....	1,636		0,000,845
Passenger vehicles.....	1,555,001	2,073	406	1,324,458,676	Business vehicles.....	120,071	1,102	213,703,042
Roadsters.....	53,535			60,366,181	Delivery wagons.....	17,272	830	16,570,473
Runabouts.....	120,098			80,523,340	Trucks.....	102,185	252	194,106,484
Touring cars.....	1,225,741			980,987,982	All other.....	1,214		2,966,085
Closed cars.....	154,411	2,073	20	200,525,718	Chassis.....	192,333	42	181,930,739
All other.....	1,216			2,055,455	Trailers.....	15,686		6,633,068
Public conveyances, cabs, omnibuses, etc.....	1,877			3,100,447	All other products, including bodies and parts and repair work.....			1,301,950,144

² Includes 1,109 tractors valued at \$1,953,753.

Automobiles made, classified according to use and type, by states.—In Table 13 is shown the total number of automobiles, classified by use and type, manufactured in the United States in 1919, 1914, and 1909, and for such states as can be shown separately without the possibility of disclosing the operations of individual establishments.

The manufacture of automobiles in establishments whose product of chief value was the complete vehicle, was reported by 315 establishments located in 33 different states. The great volume of the business, as shown by the table, was confined to a few states. The state of Michigan alone reported the manufacture of 689,056, or 40.9 per cent of all classes made in 1919,

and also led all other states in each type of machine produced with 40.2 per cent and 49.3 per cent, respectively, of the total pleasure and business vehicles reported.

Of the various classes of automobiles shown in this table, the touring car is far the most important in point of number and of value, representing 72.8 per cent of the total number and 63.1 per cent of the total value of all machines reported in 1919.

The greatest percentage of increase for the five-year period was shown in the manufacture of business vehicles, there being a gain of 398.2 per cent in the number made and an increase of 410.9 per cent in the total value of products.

AUTOMOBILES.

11

TABLE 13.—AUTOMOBILES MADE, CLASSIFIED ACCORDING TO USE AND TYPE, BY STATES: 1919, 1914, AND 1909.

CLASS AND STATE.	NUMBER.			VALUE.		
	1919	1914	1909	1919	1914	1909
	1,683,916	569,054	126,593	\$1,554,881,406	\$458,957,843	\$164,269,324
All classes: ¹						
Passenger vehicles						
Touring cars	1,557,480	543,679	121,868	1,324,458,676	413,859,379	155,821,331
Illinois	1,226,127	451,267	76,114	980,987,982	346,134,147	113,403,188
Indiana	57,524	2,686	2,059	37,710,222	3,350,538	2,746,214
Michigan	49,740	13,034	6,838	60,976,271	16,574,132	10,710,289
New York	509,830	367,092	43,855	483,103,499	251,609,056	51,385,984
Ohio	76,971	5,945	5,440	56,003,880	9,499,111	12,296,292
Wisconsin	157,354	49,421	6,479	123,097,625	44,800,434	14,307,360
Closed cars	54,098	8,825	(2)	45,234,757	10,831,327	(2)
Illinois	156,504	10,800	4,002	200,525,718	21,832,536	10,182,029
Indiana	8,372	282	325	6,419,553	785,152	896,110
Michigan	6,325	503	439	9,728,908	1,071,392	772,401
New York	54,573	6,810	1,539	80,900,677	10,636,264	3,803,616
Ohio	13,805	792	296	21,510,602	2,811,047	1,174,335
Wisconsin	22,349	2,010	1,072	30,913,944	4,251,172	2,526,891
Runabouts	7,213	(2)		7,976,349	(2)	
Michigan	120,098	81,603	36,204	80,523,340	45,892,690	28,030,470
New York	27,015	63,381	18,173	32,622,730	33,307,852	13,399,937
Ohio	6,017	1,037	1,097	3,256,168	1,434,925	1,539,639
Roadsters	12,137	7,117	2,900	8,673,108	4,783,840	2,948,588
Indiana	53,535	(2)	(2)	60,366,181	(2)	(2)
Michigan	2,926			5,285,021		
New York	35,321			37,208,278		
Ohio	1,917			2,550,512		
All other varieties	5,807			7,341,300		
1,216			45,548	2,050,456		4,205,635
Business vehicles						
Delivery wagons	126,436	25,375	4,725	280,422,820	45,098,464	8,447,993
Michigan	18,122	4,391	1,862	16,570,473	4,749,889	1,918,856
New York	12,912	1,295	401	11,294,203	970,569	319,071
Trucks	1,320	511	139	1,804,203	846,630	282,980
California	102,437	19,551	1,366	104,160,484	34,774,336	3,165,512
Illinois	1,456	159		3,380,927	410,417	
Indiana	5,011	1,072	28	8,814,354	1,810,824	46,955
Iowa	3,572	445	43	6,212,756	788,107	109,492
Michigan	421	(2)	(2)	847,152	(2)	(2)
New York	47,442	4,684	372	70,169,104	7,220,321	904,311
Ohio	8,016	2,250	475	24,738,980	4,670,608	889,724
Pennsylvania	10,427	7,598	202	23,253,457	13,611,031	386,945
Wisconsin	7,088	771	(2)	18,170,703	1,772,095	(2)
All other varieties ⁶	8,910	677	(2)	20,565,491	1,168,596	(2)
Illinois	5,877	1,433	1,497	19,685,863	5,574,239	3,363,625
Michigan	731	37	(2)	1,802,847	77,103	(2)
New York	1,063	10	144	2,610,237	30,102	289,458
Ohio	632	521	406	5,270,760	2,485,857	1,020,183

¹ Includes, in 1919, 4,660 automobiles valued at \$7,791,495 made as subsidiary products by establishments classified in other industries, but does not include, in 1914, 3,985 automobiles valued at \$6,099,631, and, in 1909, 694 automobiles valued at \$880,080 made in establishments of this character.

² Excluded to avoid disclosure of individual operations.

³ Included with "Runabouts" in 1914 and 1909.

⁴ Includes 4,582 buggies valued at \$2,391,250.

⁵ Includes cabs, omnibuses, ambulances, fire department, mail delivery, tanks, patrol wagons, and other varieties.

Automobiles made, classified according to motive power and type.—Table 14 shows the number and value of the several kinds of automobiles, classified according to motive power, as reported for 1919, 1914, and 1909.

Large increases are shown for the five-year period 1914 to 1919 in the number of gasoline vehicles of all kinds manufactured, the total number reported being

a gain of 197.9 per cent over the output for 1914. Electric machines showed a decrease in the total number reported of 31.8 per cent, the only increase noted being 272.8 per cent for delivery wagons. The output of steam vehicles was practically the same as for 1914, showing an increase of 1.2 per cent.

MANUFACTURES.

TABLE 14.—AUTOMOBILES MADE, CLASSIFIED ACCORDING TO MOTIVE POWER AND TYPE: 1919, 1914, AND 1909.

CLASS.	AUTOMOBILES.			CLASS.	AUTOMOBILES.			
	Number.				Number.			
	Gasoline.	Electricity.	Steam.		Value.	Gasoline.	Value.	
All classes: ¹				All other passenger vehicles:				
1919.....	1,680,327	3,183	406	1919.....	1,216	.....	\$2,055,455
1914.....	563,084	4,689	401	1914 ²	4,888	680	4,205,635	
1909.....	120,393	3,826	2,374	1909.....	4,888	680	4,205,635	
Touring cars:				Delivery wagons:				
1919.....	1,225,741	386	982	1919.....	17,272	850	16,570,473	
1914.....	451,008	3	258	1914.....	4,130	228	4,740,889	
1909.....	78,883	243	1,983	1909.....	1,045	217	1,918,860	
Closed cars:				Trucks:				
1919.....	154,411	2,073	20	1919.....	102,185	252	104,100,484	
1914.....	7,707	3,102	.....	1914.....	18,428	1,121	34,774,336
1909.....	2,088	1,014	.....	1909.....	1,090	276	3,105,512
Runabouts:				All other business vehicles: ⁴				
1919.....	120,098	.....	.....	1919.....	5,860	8	10,085,863
1914.....	81,388	143	72	1914.....	1,314	72	5,574,239	
1909.....	35,347	496	361	1909.....	1,452	20	3,303,025	
Roadsters:								
1919.....	53,535	.....	.....			
1914 ².....	.....	.....	.....		
1909 ².....	.....	.....	.....		

¹ Includes, in 1919, 4,660 automobiles valued at \$7,704,495 made as subsidiary products by establishments classified in other industries, but does not include, in 1914, 3,08; automobiles valued at \$6,039,631, and, in 1909, 694 automobiles, valued at \$830,080 made in establishments of this character.

² Included with "Runabouts."

³ Figures not available.

⁴ Includes public conveyances, Government and municipal vehicles.

Automobiles made, classified according to horsepower rating.—Table 15 shows that 71.3 per cent of the total number of automobiles manufactured in 1919 were rated as having from 20 to 29 horsepower, while the groups from 10 to 49 horsepower represented 99.6 per cent of the total number reported for the United

States. Only two-tenths of 1 per cent were rated at less than 10 horsepower, and only one-tenth of 1 per cent at more than 50 horsepower in 1919, as compared with nine-tenths of 1 per cent and 2.3 per cent, respectively, in 1914.

TABLE 15.—AUTOMOBILES MADE, CLASSIFIED ACCORDING TO HORSEPOWER RATING: 1919, 1914, AND 1909.

CLASS.	Total.	HORSEPOWER RATING.						CLASS.	Total.	HORSEPOWER RATING.					
		Less than 10 h. p.	10 but less than 20 h. p.	20 but less than 30 h. p.	30 but less than 50 h. p.	50 but less than 90 h. p.	90 h. p. or more.			Less than 10 h. p.	10 but less than 20 h. p.	20 but less than 30 h. p.	30 but less than 50 h. p.	50 but less than 90 h. p.	90 h. p. or more.
All classes: ¹								All other passenger vehicles:							
1919.....	1,653,916	3,815	250,713	1,200,318	226,580	1,980	510	1919.....	1,216	.....	114	883	260	.....	.....
1914.....	560,054	4,952	45,022	344,336	161,722	12,543	179	1914 ²	4,888	.....	4,888	680	.....	.....	.....
1909.....	120,393	7,539	29,353	35,257	51,218	3,197	29	1909.....	5,548	907	3,712	305	650	14	.....
Touring cars:								Delivery wagons:							
1919.....	1,226,127	216,395	879,771	129,026	865	70	1919.....	18,122	850	2,384	4,102	10,780	.....	.....
1914.....	451,267	3	29,584	276,565	133,323	11,661	131	1914.....	4,301	228	2,125	717	1,278	13	.....
1909.....	76,114	177	5,415	21,773	45,926	2,802	21	1909.....	1,802	203	878	624	97	.....	.....
Closed cars:								Trucks:							
1919.....	156,504	2,073	12,325	119,559	23,332	215	.....	1919.....	102,437	540	5,948	59,002	36,745	100	.....
1914.....	10,809	3,102	781	2,406	4,128	389	3	1914.....	19,551	1,122	2,502	6,802	8,050	100	.....
1909.....	4,002	1,389	847	729	774	62	1	1909.....	1,380	56	317	280	606	101	.....
Runabouts:								All other business vehicles: ⁴							
1919.....	120,098	10	116,234	3,784	70	.....	1919.....	5,877	.....	84	1,262	3,824	281	426	
1914.....	81,603	430	9,851	57,610	13,519	180	13	1914.....	1,433	67	179	200	515	434	32
1909.....	36,204	4,532	17,548	10,931	3,020	157	7	1909.....	1,497	15	636	549	236	61	.....
Roadsters:															
1919.....	53,535	346	13,453	19,555	19,814	353	14								
1914 ².....	.....	.....	.....	.....	.....	.....	.....	
1909 ².....	.....	.....	.....	.....	.....	.....	.....	

¹ Includes, in 1919, 4,660 automobiles made as subsidiary products by establishments classified in other industries, but does not include, in 1914, 3,085 automobiles, and, in 1909, 694 automobiles made in establishments of this character.

² Included with "Runabouts."

³ Figures not available.

⁴ Includes public conveyances, Government and municipal vehicles.

AUTOMOBILES.

13

GENERAL TABLES.

Table 16 gives, for 1919, 1914, and 1909, by states, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products for the automobile industry.

Table 17 presents, for 1919, statistics in detail for the industry as a whole, for automobiles and for automobile bodies and parts, showing each state that can be shown separately without the possibility of disclosing the operations of individual establishments.

TABLE 16.—COMPARATIVE SUMMARY, BY STATES: 1919, 1914, AND 1909.

STATE.	Cen-sus year.	Num-ber of es-tab-lish-ments.	Wage earners (aver-age num-ber).	Primary horse-power.	Wages.	Cost of mate-rials.	Value of prod-ucts.	STATE.	Cen-sus year.	Num-ber of es-tab-lish-ments.	Wage earners (aver-age num-ber).	Primary horse-power.	Wages.	Cost of mate-rials.	Value of prod-ucts.					
Expressed in thousands.								Expressed in thousands.												
United States	1919	2,830	333,115	544,212	\$491,121	\$1,940,670	\$3,080,074	New Jersey	1919	116	5,519	9,185	\$7,658	\$37,085	\$54,671					
	1914	1,271	127,092	173,684	101,927	350,208	632,831		1914	53	2,520	3,177	1,832	3,766	8,237					
	1909	743	75,721	75,550	48,604	131,646	249,202		1909	24	1,024	1,311	615	892	2,008					
California	1919	265	3,008	3,313	4,065	30,318	44,302	New York	1919	344	20,483	42,474	39,312	135,797	211,137					
	1914	98	731	1,457	600	1,234	2,459		1914	247	12,122	17,938	8,988	21,076	42,115					
	1909	41	478	305	368	700	1,470		1909	113	9,361	9,398	7,016	14,908	30,980					
Illinois	1919	229	8,805	15,098	11,139	73,954	104,883	Ohio	1919	281	45,882	70,039	63,410	250,981	379,436					
	1914	91	2,515	3,421	1,946	6,288	11,018		1914	102	18,752	30,249	13,411	55,330	85,711					
	1909	65	2,382	1,786	1,653	3,979	7,154		1909	75	12,130	14,433	7,746	18,522	38,839					
Indiana	1919	172	25,773	30,481	29,853	117,767	179,065	Oregon	1919	17	46	93	71	118	259					
	1914	86	7,219	12,137	5,027	18,831	29,380		1914	6	35	42	32	50	115					
	1909	67	6,707	5,813	4,131	14,995	23,764													
Massachusetts	1919	96	4,530	4,441	5,829	16,282	27,032	Pennsylvania	1919	202	14,708	23,363	18,849	76,129	113,820					
	1914	60	3,139	4,208	3,016	5,642	14,190		1914	80	3,083	5,130	2,137	5,558	10,084					
	1909	62	4,138	2,890	2,793	5,491	11,359		1909	44	3,199	2,746	1,808	4,051	6,532					
Michigan	1919	271	175,985	284,127	272,989	950,767	1,620,383	Wisconsin	1919	95	13,585	22,892	19,634	75,176	119,381					
	1914	205	67,538	79,379	57,792	219,215	398,289		1914	43	4,889	9,827	3,908	10,465	18,478					
	1909	113	25,444	25,938	15,491	53,882	96,651		1909	30	4,298	3,153	2,733	5,340	11,440					
Missouri	1919	86	3,240	3,508	3,721	54,943	71,939	All other states	1919	656	11,551	17,230	14,591	112,362	153,706					
	1914	25	504	626	389	1,207	2,183		1914	169	3,715	6,003	2,849	6,646	13,554					
	1909	17	368	184	252	1,025	1,677		1909	92	5,602	7,587	4,086	7,881	17,328					

MANUFACTURES.

TABLE 17.—DETAILED STATEMENT FOR THE

STATE.	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY.										WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.		
		Total.	Proprietors and firm members	Salaried officers, superintendents, and managers	Clerks, etc.			Wage earners.				Total.	16 and over.		Under 16.			
					Male.	Female.	Average number.	Number, 15th day of—		Male.	Female.		Male.	Female.				
								Maximum month.	Minimum month.									

AUTOMOBILES, INCLUDING BODIES AND PARTS.

																	Dollars.
1	United States.....	2,830	395,104	2,165	12,206	24,354	14,264	343,115	De 399,044	Ja 283,491	403,209	386,504	15,986	651	68	1,780,948,952	
2	Alabama.....	9	114	9	8	8	8	89	Oc 97	Mh ^a 83	111	111	94	4	—	226,415	
3	California.....	265	3,841	290	180	229	134	3,008	No 3,475	Ja, 2,212	3,492	3,394	—	—	—	15,403,349	
4	Delaware.....	5	22	8	3	—	—	11	Sg ^b 12	Ja ^c 10	11	11	—	—	—	75,006	
5	Florida.....	8	58	11	1	1	1	44	Jo ^d 46	Mh 38	44	44	—	—	—	106,059	
6	Idaho.....	5	17	5	3	1	1	7	(4) 7	(4) 7	8	8	—	—	—	26,660	
7	Illinois.....	229	10,964	141	631	829	558	8,805	De 10,342	Ja, 7,315	10,338	9,827	484	22	5	43,584,352	
8	Indiana.....	172	29,529	102	1,019	1,443	1,192	25,773	De 29,800	Fe 21,034	30,818	28,726	1,975	100	8	109,303,857	
9	Iowa.....	43	720	38	53	34	31	504	No 687	Ap 468	653	582	59	12	—	2,454,023	
10	Maine.....	6	56	3	6	1	6	40	Au 48	Ja 28	45	45	—	—	—	47,981	
11	Massachusetts.....	96	5,293	69	241	217	236	4,530	De 5,316	Ap 3,825	5,037	5,383	203	50	1	16,032,750	
12	Michigan.....	271	197,881	95	4,780	10,702	6,229	175,985	No 206,035	Ja 130,212	205,753	197,826	7,007	230	—	902,513,908	
13	Mississippi.....	4	75	2	9	7	1	56	De 83	Ja 35	82	78	4	—	—	126,176	
14	Missouri.....	86	4,154	65	221	511	117	3,240	De 3,588	Ja 2,800	3,602	3,505	39	2	6	12,746,250	
15	Montana.....	6	11	7	—	—	—	4	Je ^e 6	Fe ^f 2	4	3	1	—	—	10,167	
16	New Jersey.....	116	6,625	101	215	520	270	5,519	De 6,373	Ap 4,835	6,402	6,127	275	—	—	20,501,690	
17	New York.....	344	36,486	287	1,632	2,526	1,578	30,483	Oc 33,189	Ja, 27,845	32,794	31,554	1,216	18	6	122,510,513	
18	North Dakota.....	5	18	4	2	—	—	12	Oc ^g 16	Ja ^c 10	15	15	—	—	—	27,282	
19	Ohio.....	281	58,321	163	1,442	3,651	2,183	45,882	De 57,610	My 35,303	58,004	55,857	2,602	81	4	256,406,002	
20	Oregon.....	17	70	22	1	1	—	46	Jy 55	Ja 31	50	48	1	—	—	115,256	
21	Pennsylvania.....	202	17,157	163	557	1,191	533	14,708	De 17,861	Ja 12,084	17,958	17,504	346	48	—	65,547,045	
22	Rhode Island.....	18	225	17	15	3	11	179	De 203	Fe 151	208	196	12	—	—	486,787	
23	Utah.....	6	69	6	3	4	—	56	Jy 71	Ja 46	39	39	—	—	—	90,355	
24	Wisconsin.....	95	16,353	54	560	1,458	698	13,585	No 14,793	Fe 11,735	14,609	14,047	550	9	3	62,751,863	
25	All other states ^h	541	13,045	518	624	927	487	10,489	—	—	11,932	11,514	318	65	35	58,883,871	

AUTOMOBILES.

1	United States.....	315	242,022	36	6,431	16,606	9,290	210,559	De 399,044	Ja 283,491	243,128	234,016	7,021	288	3	1,310,451,400	
2	California.....	12	1,642	6	82	163	64	1,327	No 1,006	Ja 773	1,539	1,513	26	—	—	11,001,021	
3	Illinois.....	25	4,455	5	234	477	232	3,507	No 4,040	Ja 3,017	3,985	3,898	79	8	—	26,673,294	
4	Indiana.....	27	12,182	3	368	737	510	10,544	Do 18,247	Po 8,769	13,128	12,178	804	54	—	54,609,762	
5	Iowa.....	6	151	1	10	15	12	104	Je 131	Au 64	100	100	100	—	—	1,220,136	
6	Massachusetts.....	8	1,287	2	94	106	76	989	De 1,460	Ja 521	1,460	1,430	24	6	—	7,271,507	
7	Michigan.....	68	142,976	4	3,084	8,120	4,831	126,937	De 145,241	Ja 99,563	145,578	140,810	4,500	178	—	806,195,803	
8	Missouri.....	8	2,383	—	113	333	72	1,865	De 2,012	Ja 1,063	1,984	1,922	62	—	—	9,594,433	
9	New Jersey.....	6	2,843	—	91	299	94	2,359	Ja 2,703	Ap 2,035	2,356	2,595	61	—	—	11,578,691	
10	New York.....	28	18,318	1	840	1,763	920	14,794	Oc 10,464	Mh 12,072	15,348	16,006	330	6	—	71,718,020	
11	Ohio.....	44	33,760	2	715	2,407	1,424	29,212	De 35,931	My 20,274	36,097	35,654	1,343	—	—	101,041,010	
12	Pennsylvania.....	25	5,342	2	168	494	244	4,431	De 4,986	Ja 3,755	5,108	4,990	115	3	—	28,172,033	
13	Wisconsin.....	15	10,773	6	349	1,004	507	8,907	Oc 9,307	Fe 7,914	9,155	8,839	315	1	—	46,883,931	
14	All other states ^h	43	6,850	4	274	688	304	5,580	—	—	6,092	5,981	76	32	3	43,410,799	

¹ Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).² Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).³ Same number reported for one or more other months.⁴ Same number reported throughout the year.

AUTOMOBILES.

15

AUTOMOBILE INDUSTRY, BY STATES: 1919.

EXPENSES.								Value added by manufacturer.	POWER.					
Salaries and wages.			Rent and taxes.			For materials.			Total.	Primary horsepower.			Electric horse-power generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.	For contract work.	Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.		Steam engines (not turbines)	Steam turbines.	Internal-combustion engines.	Water power. ¹		
									Total.					

AUTOMOBILES, INCLUDING BODIES AND PARTS.

Dollars. 54,509,015	Dollars. 47,675,129	Dollars. 491,121,373	Dollars. 1,758,313	Dollars. 4,165,823	Dollars. 146,030,139	Dollars. 1,918,933,810	Dollars. 21,685,066	Dollars. 3,080,073,979	Dollars. 1,139,395,103	Dollars. 544,242	Dollars. 78,343	Dollars. 67,869	Dollars. 12,927	Dollars. 566	Dollars. 384,537	Dollars. 111,172	Dollars. 1
9,439	7,489	86,440	6,930	1,671	82,661	10,005	262,680	170,024	233	3	76	248	233	233	233	233	2
497,650	413,531	4,065,288	103,455	263,285	1,450,173	30,180,342	137,393	44,342,046	14,044,308	3,313	12	39	3,227	3,227	3,227	3,227	3
4,731	1,717	10,691	500	930	327	14,835	969	64,013	43,209	51	3	23	33	33	33	33	4
1,717	180	59,751	6,056	655	89,231	1,720	207,281	110,327	26	5	6	23	23	23	23	23	5
180	402	5,333	926	389	7,989	129	22,026	13,928	11	5	6	6	6	6	6	6	6
2,220,698	1,834,213	11,138,806	133,379	466,799	3,603,338	73,476,977	476,831	104,853,442	30,929,634	15,098	1,065	670	248	13,115	455	455	7
3,049,498	2,820,779	29,853,445	203,543	208,048	6,785,851	115,553,006	2,210,941	179,064,863	61,297,916	39,481	7,020	3,375	230	28,550	5,450	5,450	8
127,810	93,646	595,433	24,694	25,614	30,368	1,937,928	31,031	3,297,013	1,328,059	713	150	64	563	563	563	563	9
6,932	2,274	49,313	3,242	251	22,539	1,598	86,879	62,742	64	441	840	225	3,344	310	310	310	10
822,617	459,079	5,829,241	22,214	103,686	966,535	16,037,464	244,237	27,031,604	10,749,933	4,441	18	18	18	18	18	18	11
28,040,185	22,275,735	272,989,412	889,057	927,729	92,224,827	948,815,885	10,951,595	1,620,383,356	660,615,925	284,127	37,539	59,177	8,567	18	178,826	84,239	12
15,512	6,527	48,987	3,360	5,662	70,083	1,866	105,728	177,677	211	140	71	71	71	71	71	71	13
510,933	687,080	3,721,310	7,670	112,650	2,090,551	54,820,084	123,400	71,839,498	16,996,042	3,509	993	40	2,473	2,473	2,473	2,473	14
782,369	908,553	7,657,577	6,380	133,159	2,022,447	36,763,886	321,131	54,671,352	17,586,335	9,185	980	3,500	565	4,160	2,720	2,720	16
5,499,093	4,280,828	39,311,532	127,799	695,547	5,749,817	134,262,535	1,534,363	211,137,153	75,340,252	42,474	8,212	332	493	540	32,897	6,326	17
900	22,945	1,570	246	246	26,054	1,659	62,928	35,185	26	26	26	26	26	26	26	26	18
5,921,820	7,545,549	63,410,248	158,033	326,272	12,027,180	247,803,314	3,177,595	379,436,478	128,455,568	79,039	8,555	440	877	60,167	3,723	3,723	19
1,650	360	71,355	12,718	1,434	113,705	3,940	258,678	141,023	93	93	93	93	93	93	93	93	20
1,714,950	2,290,889	18,849,194	26,518	333,739	4,115,507	75,274,855	854,037	113,820,134	37,091,242	23,363	3,540	160	729	5	18,939	1,323	21
39,806	13,061	192,727	2,332	18,406	14,413	194,396	9,463	684,605	480,746	280	5	275	275	275	275	275	22
7,200	5,500	61,430	9,286	1,149	54,277	1,943	110,026	166,246	40	40	40	40	40	40	40	40	23
2,422,526	2,202,765	19,631,048	9,200	90,947	7,245,194	74,145,532	1,030,626	119,380,641	44,204,483	22,892	5,710	559	16,623	4,198	24	24	24
1,904,739	1,817,086	13,453,354	516,529	412,726	7,022,951	103,228,449	557,987	148,639,495	38,853,079	15,554	3,610	483	3,610	3,610	11,455	1,798	25

AUTOMOBILES.

Dollars. 34,591,682	Dollars. 32,624,122	Dollars. 312,165,870	Dollars. 198,142	Dollars. 1,262,023	Dollars. 126,893,916	Dollars. 1,565,694,602	Dollars. 12,956,972	Dollars. 2,387,903,287	Dollars. 809,251,713	Dollars. 287,323	Dollars. 45,423	Dollars. 59,109	Dollars. 861	Dollars. 181,930	Dollars. 93,426	Dollars. 1	
227,554	297,976	1,809,024	18,088	28,351	1,392,470	26,049,006	77,055	36,626,893	9,600,882	1,332	48	1,284	2	1,284	2	2	
867,257	979,259	4,064,716	49,985	120,157	3,167,111	60,837,016	164,750	77,018,464	15,986,692	6,263	380	670	72	72	72	3	
1,484,404	1,340,025	12,480,913	6,093	102,269	4,936,045	77,158,316	539,399	107,347,614	29,649,889	13,564	2,830	10,734	626	10,734	626	4	
428,196	32,959	126,342	15,690	3,485	1,141,106	11,407	1,534,005	431,492	161	161	161	161	161	161	161	161	5
248,592	176,699	1,239,542	1,200	703,355	9,506,827	62,979	12,543,222	2,975,416	1,160	125	1,035	40	40	40	40	40	6
21,405,791	17,128,611	197,768,186	100	642,476	83,140,040	801,202,501	8,002,488	1,332,076,498	522,871,509	180,702	22,620,67,707	146	100,220	79,625	79,625	7	
1,705,794	480,445	2,303,753	26,308	2,000,153	50,052,093	71,253	62,624,650	12,500,404	1,470	500	500	970	565	565	565	8	
285,923	567,091	3,506,642	12,890	1,525,833	30,529,043	153,368	39,500,664	8,878,255	3,246	300	300	2,946	379	379	379	9	
3,004,010	2,645,172	20,003,599	78,323	3,889,804	100,645,015	593,934	140,721,990	39,478,050	14,498	4,805	332	9,271	5,478	5,478	5,478	10	
3,513,285	5,147,108	41,443,839	97,566	53,798	9,910,381	193,354,341	2,084,620	287,045,832	88,606,871	37,473	6,113	400	228	30,732	3,061	11	
608,533	1,075,566	5,703,126	1,432	121,747	2,032,401	51,220,062	200,847	63,490,911	17,070,002	5,413	628	220	4,565	140	140	12	
1,708,090	1,301,040	13,257,349	1,762	8,190	6,324,586	61,074,320	683,930	95,030,129	33,271,879	14,364	5,025	11	9,828	1,663	1,663	13	
1,984,250	1,361,941	7,855,029	7,426	64,769	6,758,861	98,994,026	305,938	127,227,400	27,927,442	7,177	2,007	208	4,962	1,788	1,788	14	

⁶ All other states embrace: Arizona, 2 establishments; Arkansas, 15; Colorado, 31; Connecticut, 55; District of Columbia, 6; Georgia, 20; Kansas, 30; Kentucky, 19; Louisiana, 12; Maryland, 36; Minnesota, 53; Nebraska, 22; Nevada, 2; New Hampshire, 5; New Mexico, 1; North Carolina, 9; Oklahoma, 21; South Carolina, 7; South Dakota, 5; Tennessee, 18; Texas, 77; Vermont, 1; Virginia, 21; Washington, 62; and West Virginia, 2.

⁸ All other states embrace: Arkansas, 1 establishment; Colorado, 2; Connecticut, 2; District of Columbia, 1; Georgia, 2; Kansas, 2; Kentucky, 2; Louisiana, 2; Maryland, 1; Minnesota, 5; Nebraska, 2; New Hampshire, 1; North Carolina, 2; Oklahoma, 3; South Carolina, 1; South Dakota, 1; Tennessee, 1; Texas, 5; Virginia, 2; Washington, 4; and West Virginia, 1.

MANUFACTURES.

TABLE 17.—DETAILED STATEMENT FOR THE

STATE.	Number of establish- ments	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.						
		Total.	Propri- tors and firm mem- bers.	Sal- aried offi- cers, super- in- tendents, and man- agers.	Clerks, etc.		Wage earners.				Total.	16 and over.		Under 16.		Capital.
					Male.	Fe- male.	Aver- age num- ber.	Number, 15th day of—	Maximum month.	Minimum month.		Male.	Fe- male.	Male.	Fe- male.	

AUTOMOBILE BODIES AND PARTS.

																Dollars.		
1	United States.....	2,515	153,182	2,129	5,775	7,748	4,974	132,556	De	8,127	Ja ^a	5,476	160,081	151,588	8,065	363	65	470,497,562
2	Alabama.....	9	114	9	8	8	-----	80	Oc	97	Mh ^b	83	111	111	-----	-----	-----	226,415
3	Arkansas.....	14	107	15	3	4	2	83	De ^c	111	Ap	61	111	100	10	1	187,868	
4	California.....	253	2,199	284	98	66	70	1,681	De	1,921	Ja	1,439	1,953	1,881	68	4	3,412,328	
5	Colorado.....	29	272	30	20	5	5	212	Jy	227	Ja	182	238	220	5	2	335,601	
6	Connecticut.....	53	1,392	50	73	54	51	1,164	De	1,494	Ju	863	1,504	1,420	43	20	4,024,071	
7	Delaware.....	5	22	8	3	-----	-----	11	Se ^d	12	Ja ^e	10	11	11	-----	-----	75,000	
8	District of Columbia.....	5	34	5	3	1	-----	25	De	30	Mh	21	30	28	2	102,002		
9	Florida.....	8	58	11	1	1	1	44	Ja ^d	46	Mh	38	44	44	-----	106,059		
10	Georgia.....	27	279	29	25	13	8	209	De	240	Fe ^e	109	243	210	30	3	430,471	
11	Idaho.....	5	17	5	3	1	1	7	(4)	7	(4)	7	8	8	-----	-----	26,569	
12	Illinois.....	204	6,503	136	397	352	326	5,298	De	6,361	Ju	4,208	6,353	5,929	405	14	5	16,911,058
13	Indiana.....	145	17,357	90	651	705	682	15,229	No	16,587	Fe	12,865	17,692	10,548	1,081	55	8	54,004,095
14	Iowa.....	37	589	37	34	19	19	460	No	598	Ap	348	553	482	59	12	1,234,487	
15	Kansas.....	28	145	43	5	3	4	90	De	118	Fe	74	119	116	3	-----	421,003	
16	Kentucky.....	17	447	15	23	12	9	388	Ja ^d	397	No	379	389	382	6	1	1,045,233	
17	Louisiana.....	10	206	10	7	12	3	174	Au	197	Fe	152	196	196	-----	-----	321,854	
18	Maine.....	6	56	3	6	1	6	40	Au	48	Ja	28	45	45	-----	47,981		
19	Maryland.....	35	326	36	21	28	8	233	Se	249	Ja	216	251	246	5	-----	701,289	
20	Massachusetts.....	88	4,026	67	147	111	160	3,541	De	3,856	Ja	3,182	4,177	3,953	179	44	1	9,061,243
21	Michigan.....	203	54,905	91	1,696	2,672	1,398	49,048	No	61,438	Ja	36,649	60,175	57,016	3,107	52	-----	186,318,073
22	Minnesota.....	45	537	44	43	26	19	405	De	454	Ja	328	481	457	14	-----	979,377	
23	Mississippi.....	4	75	2	9	7	1	56	De	83	Ja	35	82	78	4	-----	126,176	
24	Missouri.....	78	1,771	65	103	178	45	1,375	De	1,576	Ja	1,137	1,618	1,583	27	2	0	3,151,817
25	Montana.....	6	11	7	4	-----	-----	4	Ja ^d	6	Fe ^e	2	4	3	1	-----	16,107	
26	Nebraska.....	20	425	12	32	29	25	327	Oc	412	Mh	252	488	446	41	1	-----	2,755,430
27	New Hampshire.....	41	7	3	-----	-----	4	(4)	4	(4)	4	4	4	4	4	4	17,828	
28	New Jersey.....	110	3,782	101	124	291	176	3,160	De	3,717	Fe	2,461	3,746	3,532	214	-----	8,923,205	
29	New York.....	316	18,168	266	792	763	658	15,689	Oc	16,725	Ja	14,237	17,446	16,548	880	12	6	50,701,503
30	North Carolina.....	7	56	11	1	-----	-----	44	Je	49	Mh	40	42	42	42	42	50,132	
31	North Dakota.....	5	18	4	2	-----	-----	12	Ja ^d	16	Ja ^d	10	15	15	15	15	27,282	
32	Ohio.....	237	19,561	161	727	1,244	759	16,670	De	21,670	Fe	12,635	21,607	20,203	1,319	81	4	65,425,052
33	Oklahoma.....	18	142	17	9	5	6	105	Se	113	Ja	92	102	95	7	1	175,674	
34	Oregon.....	17	70	22	1	1	1	46	Jy	55	Ja	31	50	48	1	1	115,250	
35	Pennsylvania.....	177	11,815	160	389	697	289	10,274	De	12,895	Ja	8,329	12,850	12,574	231	46	-----	37,375,912
36	Rhode Island.....	18	225	17	15	3	11	179	De	203	Fe	151	208	196	12	-----	486,787	
37	South Carolina.....	6	48	8	2	1	3	34	De ^a	37	Ja	30	36	35	-----	1	57,469	
38	South Dakota.....	4	10	5	-----	-----	5	My ^a	6	Oc ^a	4	5	5	5	5	5	5,103	
39	Tennessee.....	17	547	15	19	18	9	488	Oc	631	Ja	377	561	536	25	-----	843,250	
40	Texas.....	72	820	85	30	12	13	180	De	573	Fe	412	581	560	17	4	975,356	
41	Utah.....	6	69	6	3	4	-----	56	Jy	71	Ja	46	39	38	38	38	00,355	
42	Virginia.....	19	168	14	16	7	5	120	Oc	141	Ja ^a	105	137	110	27	-----	370,484	
43	Washington.....	58	377	58	22	9	12	276	My ^a	292	Fe	247	275	270	5	-----	731,895	
44	Wisconsin.....	80	5,580	43	211	454	189	4,678	No	5,523	Fe	3,821	5,454	5,208	235	8	15,870,932	
45	All other states ^b	7	50	9	1	-----	1	39	-----	47	-----	45	47	45	2	-----	00,951	

^a Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).^b Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-helt or transmitted power from neighboring power plants).^c Same number reported for one or more other months.

AUTOMOBILES.

17

AUTOMOBILE INDUSTRY, BY STATES: 1919--Continued.

EXPENSES.								POWER.									
Salaries and wages.			Rent and taxes.		For materials.			Value of products.	Value added by manufacture.	Primary horsepower.				Electric horsepower generated in establishments reporting.			
Officials.	Clerks, etc.	Wage earners.	For contract work.	Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Steam engines (not turbines)	Steam turbines.	Internal-combustion engines.	Water power. ¹			
9,439	7,480	80,440	.....	6,930	1,671	\$2,651	10,005	262,680	170,024	236	3	.....	.....	233	2
7,800	7,629	92,262	.....	6,980	530	139,678	2,918	253,954	111,053	230	.....	.....	230	3	3
270,090	112,555	2,255,364	86,367	239,914	66,694	3,231,336	60,341	7,735,153	4,443,476	1,981	.....	28	1,953	4	4	
36,300	7,172	276,302	17,828	21,412	7,690	332,356	9,940	819,280	477,884	219	.....	.....	219	5	5
278,908	147,142	1,465,134	3,000	58,721	88,933	3,026,007	65,995	6,197,757	3,105,755	1,745	370	43	1,332	8	6		
4,731	.....	16,091	500	980	327	14,835	960	84,013	48,209	51	.....	12	39	7	7
6,500	1,000	30,483	200	2,040	623	39,146	828	101,683	61,680	21	.....	21	21	8	8	
1,717	1,380	59,751	.....	0,056	655	89,234	1,720	207,281	116,327	26	.....	3	23	9	9
57,045	29,500	222,772	2,000	22,101	12,401	704,406	8,974	1,153,644	420,164	302	25	37	240	10	10		
180	402	6,333	.....	926	380	7,969	129	22,026	13,925	11	.....	5	6	11	11
1,353,441	854,954	6,474,090	83,394	346,642	496,227	12,600,961	312,075	27,884,978	14,042,942	8,895	685	248	7,902	383	12		
2,485,094	1,480,754	17,372,532	194,450	105,777	1,849,806	38,397,600	1,671,542	71,717,249	31,648,047	25,917	4,196	3,375	230	18,116	4,824	13	
79,644	60,657	469,091	9,004	22,120	22,532	798,817	19,624	1,713,003	806,567	552	150	.....	402	58	14	
7,533	6,246	93,045	.....	6,680	6,910	172,612	5,891	415,962	257,459	176	25	2	149	15	15	
63,320	24,836	410,887	.....	4,180	17,978	660,253	23,889	1,305,882	691,740	816	.....	73	743	16	16
22,540	16,595	184,114	.....	9,210	3,143	429,945	5,281	731,887	246,661	672	238	25	409	17	17	
6,902	2,274	40,313	.....	3,242	251	22,539	1,598	86,879	62,742	64	.....	64	64	18	18
49,102	55,992	278,635	2,871	16,355	10,998	425,208	12,515	1,034,364	506,641	422	.....	69	353	19	19	
574,025	282,180	4,589,899	22,214	102,430	258,177	6,530,637	181,258	14,483,382	7,771,487	3,281	715	225	32	2,309	270	29	
6,640,391	5,150,127	75,221,256	388,057	285,253	9,084,787	147,613,334	2,949,108	285,306,585	137,744,416	103,425	14,919	1,470	8,421	18	78,597	4,684	21
80,979	38,904	456,559	2,955	35,768	23,417	850,290	26,596	1,763,048	885,862	611	.....	4	607	22	22	
15,512	6,527	48,987	.....	3,360	5,662	70,083	1,886	177,677	105,725	211	140	.....	71	23	23
305,139	186,635	1,417,607	7,670	86,282	190,398	4,767,061	52,147	9,314,846	4,495,688	2,036	493	40	1,503	24	24		
94,964	64,160	361,049	1,744	19,360	26,842	1,019,454	17,590	1,723,167	686,123	597	100	15	482	25	26		
.....	3,131	196	.....	338	3,214	567	11,175	7,394	27	.....	27	27	27	27	27
490,446	341,862	4,150,935	6,330	120,269	496,614	6,234,843	167,785	15,110,088	8,708,080	5,939	660	3,500	565	1,214	2,341	28	
2,495,083	1,035,656	19,305,023	127,799	610,224	1,860,013	33,617,523	935,429	70,415,154	35,862,202	27,976	3,317	493	540	23,628	348	29	
750	41,747	3,027	.....	2,080	175	14,892	592	33,893	18,409	18	.....	18	82	30	30
900	22,045	1,570	.....	246	26,054	1,689	62,928	35,185	28	.....	26	26	31	31	31
2,408,535	2,393,441	21,966,409	60,467	272,474	2,116,799	51,448,973	1,002,976	92,390,846	39,848,897	41,566	2,412	40	649	38,495	662	32	
24,598	9,455	137,835	.....	14,080	6,306	164,489	5,274	428,072	258,300	105	.....	105	33	33	33
1,650	380	71,358	.....	12,718	1,484	113,705	3,940	258,678	141,038	93	.....	93	34	34	34
1,106,427	1,215,323	13,146,068	25,086	211,992	1,483,106	24,054,793	658,190	45,329,223	20,621,240	17,950	2,912	150	509	5	14,374	1,183	35
39,806	13,061	102,727	2,832	13,496	14,413	194,306	9,483	684,605	480,746	280	5	275	275	36	36	
4,699	3,415	32,436	1,500	1,995	477	103,265	2,829	138,288	32,192	57	.....	57	57	37	37	
.....	6,395	920	166	7,170	637	26,216	18,409	12	.....	12	.....	12	38	38	38
51,769	23,150	417,187	3,862	15,530	21,187	558,651	20,503	1,351,070	772,825	1,020	845	.....	175	39	39	
51,817	25,741	557,163	600	60,706	18,695	736,417	10,433	1,881,349	1,128,493	620	.....	2	624	40	40	
7,200	5,500	61,430	.....	9,280	1,149	54,277	1,943	166,246	110,028	40	.....	40	40	41	41
24,077	7,118	113,483	374	8,248	2,080	303,670	4,714	527,053	218,660	124	.....	8	3	113	42	
53,632	16,024	402,079	502,169	36,808	14,711	448,588	16,621	1,228,303	761,094	429	.....	429	43	43	43	
714,436	811,725	6,376,899	7,528	82,757	920,608	13,071,212	346,696	24,350,612	10,932,604	8,028	685	548	600	6,795	2,535	44	
3,000	976	45,027	.....	2,900	377	73,375	2,614	160,010	90,021	78	.....	78	78	45	45

⁴ Same number reported throughout the year.

⁵ All other states embrace: Arizona, 2 establishments; Nevada, 2; New Mexico, 1; Vermont, 1; and West Virginia, 1.

MANUFACTURES.

AUTOMOBILE REPAIRING.

Detailed statistics for the automobile-repairing industry.—At the census of 1919 reports were secured from establishments engaged in the repairing of automobiles and the vulcanizing of tires, detailed statistics for which are shown in Table 18. The statistics

shown for this industry do not cover the repair of automobiles in establishments engaged chiefly in the manufacture of automobiles, bodies and parts, or the vulcanizing of tires in factories classified as in the rubber-goods industry.

TABLE 18.—DETAILED STATEMENT FOR THE

STATE.	Number of establish- ments	PERSONS ENGAGED IN THE INDUSTRY.						WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.							
		Total.	Propri- tors and firm mem- bers.	Sal- ried offi- cers, super- in- tendents, and manag- ers.	Clerks, etc.		Wage earners.		Total.	16 and over.		Under 16.		Capital.	
					Male.	Female.	Aver- age num- ber.	Number, 15th day of—		Male.	Female.	Male.	Female.		

AUTOMOBILE REPAIRING.

1	United States.....	15,507	\$2,635	18,506	3,288	2,753	2,907	55,061	Au	69,004	Ja	48,702	58,085	57,454	303	238	Dollars, 141,123,954	
2	Alabama.....	132	692	157	29	22	11	480	1'o	510	Ja	418	511	509	.....	2	\$35,040
3	Arizona.....	81	374	95	18	16	14	231	1'e	268	Fe ³	211	279	270	.....	.....	602,394
4	Arkansas.....	79	395	109	13	5	7	261	1'e	270	Fe ³	250	276	271	4	1	452,322	
5	California.....	1,043	8,827	2,105	186	214	267	5,992	1'e	6,426	Ja	5,483	6,401	6,420	38	27	13,190,952	
6	Colorado.....	401	2,164	455	90	64	60	1,495	Au	1,757	Ja	1,261	1,487	1,477	4	6	3,536,080	
7	Connecticut.....	301	1,590	294	102	39	82	1,073	Au	1,149	Ja	957	1,113	1,001	20	2	2,706,780	
8	Delaware.....	15	61	13	3	3	1	41	Je	46	Fe	39	37	37	.....	.....	92,010
9	District of Columbia.....	27	285	26	18	14	13	214	Ja	229	Ja ³	209	209	209	.....	.....	730,427
10	Florida.....	70	380	90	12	8	5	259	1'e	273	Fe	247	288	287	1	.....	378,180
11	Georgia.....	195	1,216	243	54	36	20	863	De	916	Ja	785	921	904	13	4	1,169,481	
12	Idaho.....	119	546	151	28	14	11	342	Je	396	Ja	291	356	353	3	.....	1,032,440
13	Illinois.....	785	4,627	913	194	160	190	3,120	Ja	3,282	Ja	2,918	3,231	3,191	37	3	8,017,459	
14	Indiana.....	1,454	439	94	18	16	10	50	885	Au	951	Ja	779	926	919	5	2	1,051,600
15	Iowa.....	579	2,311	735	81	51	89	1,355	Au	1,532	Ja	1,119	1,430	1,409	19	2	4,412,073	
16	Kansas.....	325	1,392	424	33	33	32	870	Se	926	Ja	814	945	938	7	.....	1,855,890
17	Kentucky.....	190	923	233	31	10	35	614	De	666	Ja	543	694	602	2	.....	1,460,007
18	Louisiana.....	125	779	151	43	41	21	523	No	576	Mh	574	567	567	5	.....	1,146,743
19	Maine.....	161	665	180	29	19	37	400	Jy	510	Ja	286	425	421	4	.....	1,005,04
20	Maryland.....	212	1,617	233	101	117	65	1,101	De	1,201	Ja	965	1,207	1,201	8	3	3,315,100	
21	Massachusetts.....	279	2,057	247	60	85	83	1,682	Je	1,687	Ja	1,378	1,620	1,506	17	7	2,707,250	
22	Michigan.....	259	1,454	322	48	50	66	968	Au	1,004	Ja	774	1,047	1,032	11	4	2,004,04	
23	Minnesota.....	592	2,935	799	128	72	94	1,842	Jy	1,131	Ja	1,453	1,921	1,011	8	2	5,345,001	
24	Mississippi.....	76	289	100	3	3	6	177	Au ³	106	Ap	157	195	188	1	0	306,663	
25	Missouri.....	417	2,014	523	95	54	59	1,283	Se	1,344	Ja	1,173	1,350	1,338	8	4	3,202,786	
26	Montana.....	255	908	309	32	21	26	520	Jy	623	Ja	413	524	524	.....	.....	1,242,893
27	Nebraska.....	498	1,897	661	32	20	50	1,134	Se	1,310	Ja	989	1,170	1,104	4	2	3,506,001	
28	Nevada.....	17	74	18	4	3	4	45	Se	50	Ja	35	47	47	.....	.....	88,734
29	New Hampshire.....	45	232	52	9	4	10	157	Au	19	Ja	121	163	161	2	.....	371,782
30	New Jersey.....	493	2,393	492	90	84	100	1,627	Jy	1,747	Ja	1,473	1,093	1,066	6	22	4,328,592	
31	New Mexico.....	51	212	56	3	6	.....	147	No	166	Ja	136	161	161	.....	.....	322,988
32	New York.....	999	8,815	981	457	652	528	6,197	An	6,528	Ja	5,552	6,449	6,413	34	2	16,134,507	
33	North Carolina.....	309	1,844	345	151	32	33	1,288	De	1,338	Ja	1,201	1,332	1,313	0	13	3,116,635	
34	North Dakota.....	139	500	159	20	10	8	303	Jy	392	Ja	203	203	201	2	.....	1,723,001
35	Ohio.....	540	3,463	623	144	100	168	2,430	Oc	2,798	Ja	2,156	2,503	2,467	26	10	5,811,464	
36	Oklahoma.....	129	715	166	41	33	20	455	Se	498	Ja	403	497	490	.....	7	1,000,204
37	Oregon.....	229	1,163	294	46	57	39	727	Se	810	Ja	608	813	797	12	4	1,492,500	
38	Pennsylvania.....	1,359	7,607	1,582	253	284	263	5,225	Au	5,505	Ja	4,797	5,473	5,385	39	49	15,204,528	
39	Rhode Island.....	99	493	104	14	7	19	349	Ja	381	Ja	319	341	340	1	.....	651,167
40	South Carolina.....	183	826	202	47	31	14	532	De	588	Fe	493	509	596	3	.....	2,137,904
41	South Dakota.....	362	1,341	491	13	15	28	794	Au	936	Ja	925	820	814	3	3	2,510,001	
42	Tennessee.....	163	804	211	38	15	27	603	Jy	634	Fe	549	641	635	5	1	1,640,010	
43	Texas.....	331	1,856	448	86	42	26	1,254	Oc	1,340	Ja	1,133	1,373	1,353	8	12	2,881,206	
44	Utah.....	125	626	134	42	12	12	426	Au	506	Ja	304	462	458	2	2	665,938	
45	Vermont.....	85	430	98	11	5	19	297	Jy	345	Ja	233	306	303	2	1	828,852	
46	Virginia.....	116	582	146	23	20	17	376	Se	892	Ja	357	394	392	2	.....	820,617
47	Washington.....	562	2,591	633	119	65	82	1,687	Se	1,840	Ja	1,456	1,820	1,820	13	2	3,097,777	
48	West Virginia.....	156	694	181	38	29	25	421	Au	481	Fe ³	361	457	452	1	4	1,377,865	
49	Wisconsin.....	673	2,844	851	95	44	116	1,738	Au	1,909	Ja	1,485	1,821	1,784	22	15	0,007,889	
50	Wyoming.....	139	588	168	24	16	17	363	Au	451	Ja	277	376	374	2	.....	850,820

¹ Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).² Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

AUTOMOBILES.

19

Reports were secured only from establishments which were equipped with power-driven machinery necessary for extensive repair work, and garages and establishments which made only minor repairs with hand tools were, therefore, not canvassed. Allow-

ance must be made for the fact that many of the establishments from which reports were received included items covering the sale of accessories, etc., which could not be segregated because of the lack of necessary data.

AUTOMOBILE-REPAIRING INDUSTRY, BY STATES: 1919.

EXPENSES.									POWER.								
Salaries and wages.			Rent and taxes.			For materials.			Value added by manufacture.	Primary horsepower.					Electric horsepower generated in establishments reporting.		
Officials.	Clerks, etc.	Wage earners.	For contract work.	Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.			Rented. ²			
										Steam engines (not turbines)	Steam turbines	Internal-combustion engines	Water power. ¹				
48,114	27,026	583,618	400	58,583	16,366	615,619	25,357	1,742,915	1,101,939	990	297	2	601	.....	2	
21,459	24,340	356,575	.....	48,003	7,253	350,295	16,814	1,013,243	646,134	422	35	.....	387	.....	3
20,277	10,660	277,418	.....	31,744	3,927	275,734	15,860	833,886	547,292	605	183	.....	422	.....	4
353,012	462,364	8,299,952	348,268	1,048,230	162,642	8,963,093	303,485	24,893,910	15,627,332	8,424	452	2	7,932	6	5		
170,153	125,599	1,955,265	22,523	194,409	71,295	2,027,350	94,917	5,673,490	3,557,213	2,229	31	6	494	2	1,696		
179,260	100,335	1,333,965	13,208	172,541	34,597	1,598,716	91,225	4,545,446	2,855,502	1,003	10	.....	135	.....	948
4,962	4,033	50,577	535	9,170	844	45,187	2,164	140,632	93,281	40	19	.....	21	.....	8
35,522	54,361	229,085	2,000	23,080	5,826	358,905	12,719	884,002	482,378	155	2	.....	156	.....	9
25,180	14,725	286,762	133	32,569	6,750	231,318	13,367	740,290	495,805	590	202	97	4	287	5		
95,443	54,151	1,033,516	8,280	99,001	25,755	1,047,855	41,524	2,733,649	1,643,270	1,181	46	.....	298	.....	11
50,500	27,333	533,594	47,024	12,290	517,265	25,627	1,445,754	902,862	485	26	1	458	3	12			
354,064	321,854	4,003,019	23,130	472,73	77,073	5,881,787	220,797	13,951,423	7,844,839	4,278	72	608	3,598	14	13		
98,344	51,193	1,037,146	6,615	105,417	26,918	1,217,716	67,442	3,352,031	2,066,873	1,092	28	10	401	1,253	7		
134,473	124,874	1,736,347	8,811	187,961	39,918	2,187,167	144,938	5,806,835	3,474,730	3,232	10	.....	803	2,419	4	
56,503	46,457	1,171,665	18,980	99,809	22,131	1,211,941	63,480	3,288,214	2,012,793	2,129	10	.....	522	1,597	6	
56,015	36,676	773,127	386	74,053	22,965	902,584	39,355	2,389,396	1,447,457	1,261	19	.....	550	2	600	
53,393	32,876	547,578	2,240	41,423	12,243	623,975	24,173	1,545,329	900,181	834	30	.....	295	.....	18
32,421	28,548	464,292	.....	35,830	11,990	439,244	28,318	1,266,099	809,047	773	8	.....	186	579	19
208,767	150,606	1,288,909	37,201	100,753	43,750	2,316,773	52,524	4,874,344	2,505,047	1,094	4	119	971	.....	20	
149,437	186,701	2,044,460	9,500	203,359	88,343	1,948,460	95,160	5,072,500	3,928,880	1,424	.....	125	1,299	.....	21
98,485	114,589	1,288,441	15,982	114,734	43,883	1,780,490	82,461	4,226,691	2,363,750	2	182	.....	1,178	.....	22
207,516	119,309	2,295,942	44,032	247,594	63,755	1,993,318	170,650	9,282,481	7,118,513	2,830	22	743	2,065	23	23		
2,100	6,472	215,637	3,273	23,300	7,062	163,014	13,111	686,164	510,030	472	.....	248	224	8	24	
161,907	88,622	1,587,597	52,312	202,309	26,131	1,988,887	88,563	5,212,137	3,134,687	1,976	14	598	1,364	9	25		
45,242	40,596	774,973	177	98,655	22,280	544,688	60,597	2,038,836	1,433,551	1,187	19	291	572	1	26	
60,064	56,962	1,553,812	7,630	128,059	37,883	1,820,985	107,309	4,549,978	2,621,684	2,822	18	1,062	1,742	17	27		
10,060	6,470	79,432	.....	10,440	1,300	70,462	4,803	221,372	143,307	118	9	109	.....	28	.....	
9,108	9,740	189,728	.....	20,801	3,803	323,414	11,515	682,679	347,750	220	35	165	.....	29	.....	
169,428	161,375	2,144,190	12,866	242,635	47,386	2,204,678	107,622	6,129,747	3,817,447	2,053	105	388	1,590	6	30		
2,250	4,930	202,945	170	17,232	4,882	158,837	13,629	494,597	322,131	359	91	.....	268	.....	31
1,071,989	1,197,146	8,087,997	92,010	1,193,816	206,497	10,041,435	342,062	25,310,348	14,926,851	5,897	43	759	5,090	2	32		
307,808	82,830	1,702,371	18,240	128,784	35,445	1,743,369	64,252	5,002,291	3,104,670	1,748	16	710	1,020	.....	33	
27,156	15,524	367,920	1,173	23,907	18,161	505,601	40,420	1,231,981	686,060	767	.....	323	444	21	34	
271,286	230,647	3,311,759	38,435	283,977	86,497	4,344,652	149,745	10,245,408	5,751,011	3,078	180	735	2,763	6	35		
92,440	58,417	602,889	3,735	62,584	14,908	869,346	32,754	2,108,455	1,206,355	1,041	4	452	585	10	36		
78,713	80,884	1,027,133	405,620	107,166	15,305	745,746	44,360	2,604,602	1,814,496	1,202	2	196	11	993	3	37	
527,491	523,794	6,884,510	146,049	698,728	110,659	8,068,450	20,652,253	12,318,280	7,109	621	1,431	9	5,048	90	38	
25,257	25,630	390,368	100	40,542	13,368	317,050	10,845	1,081,055	744,190	342	50	31	261	39	
75,109	35,191	631,369	976	65,580	30,223	788,879	29,972	1,984,432	1,165,581	851	16	202	633	113	40	
18,867	36,257	1,154,245	2,502	82,312	27,922	1,146,865	85,173	3,346,613	2,114,575	2,082	14	887	1,201	19	41	
70,261	23,128	668,462	533	64,235	16,064	1,013,503	30,774	2,329,353	1,285,076	1,025	10	218	9	788	42	
147,831	61,704	1,468,665	2,569	200,953	41,465	2,111,978	73,444	5,301,804	3,116,382	1,038	34	431	1,228	21	43	
66,120	20,817	524,001	300	64,867	8,000	563,591	25,701	1,537,194	947,812	596	10	37	549	1	44	
17,270	16,365	326,221	18,465	10,078	654,867	19,132	1,820,513	1,146,514	459	114	21	324	47	45	
32,440	36,729	423,183	55,142	13,502	781,738	18,628	1,640,891	840,225	409	87	322	3	46	
219,555	145,848	2,494,747	36,906	276,852	60,592	2,311,886	103,136	6,952,681	4,537,059	2,311	32	2,054	1	47	
53,062	43,727	529,944	4,225	55,647	15,796	811,614	25,891	2,299,659	1,402,154	1,071	4	459	608	12	48	
148,624	113,553	2,053,358	16,353	183,358	105,706	2,752,580	158,677	6,864,730	3,923,473	3,210	4	22	728	19	2,437	17	49
42,080	20,246	601,702	237	49,876	10,727	570,604	36,255	1,660,287	1,053,428	837	27	259	3	548	13	50

³ Same number reported for one or more other months.